

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com
REPORT NUMBER: ITL71486 PAGE: 1 OF 7

ISSUE DATE: 01/23/12

PREPARED FOR: RAB LIGHTING, INC.

CATALOG NUMBER: LFLED5Y / LFLED5YBR / LFLED5YMBR (FLOOD SERIES)

LUMINAIRE: CAST METAL HOUSING, CAST METAL CIRCUIT BOARD MOUNTING BASE, ONE CIRCUIT BOARD WITH ONE LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH, BLACK RUBBER REFLECTOR MOUNTING COLLAR, CLEAR FLAT MICRO-PRISMATIC GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME. LENS PRISMS OUT.

LAMP: ONE WHITE MULTI-CHIP LIGHT EMITTING DIODE (LED) CONTAINING LEDS ARRANGED IN AN ARRAY OF 3 LINEAR VERTICAL ROWS, LEDS AIMED AT THE HORIZON.

TOTAL INPUT WATTS = 5.10 AT 120.0 VOLTS

LED DRIVER: LINKCOM BPHE005C401

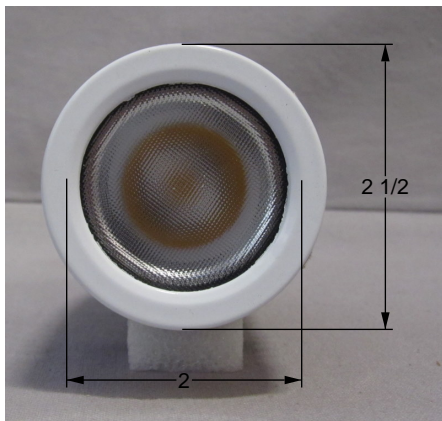
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LED DRIVER. LED DRIVER INFORMATION PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 25.25 FEET

FLOODLIGHT CHARACTERISTICS

IES TYPE	4H X 4V	AXIAL CANDLEPOWER			
MAXIMUM CANDLEPOWER	409. AT 11.0 H, 1.0 V				
HORIZONTAL BEAM ANGLE (50%)	43.4 deg	DEG	HORIZ.	DEG	VERT.
VERTICAL BEAM ANGLE (50%)	43.4 deg				
HORIZONTAL FIELD ANGLE (10%)	62.6 deg	90.0	0.	90.0	0.
VERTICAL FIELD ANGLE (10%)	63.6 deg	85.0	0.	85.0	0.
BEAM LUMENS (% FIXTURE)	144. (69.3 %)	75.0	0.	75.0	0.
FIELD LUMENS (% FIXTURE)	194. (93.0 %)	65.0	1.	65.0	1.
TOTAL LUMENS (% FIXTURE)	208. (100.0 %)	55.0	1.	55.0	1.
EFFICACY = 40.8 Lm/W		47.5	2.	47.5	3.
		42.5	4.	42.5	5.
		37.5	10.	37.5	13.
		33.0	27.	33.0	33.
		29.0	60.	29.0	73.
		25.5	116.	25.5	130.
		22.5	184.	22.5	197.
		19.5	260.	19.5	269.
		17.0	320.	17.0	325.
		15.0	364.	15.0	360.
		13.0	394.	13.0	379.
		11.0	408.	11.0	384.
		9.0	405.	9.0	374.
		7.0	383.	7.0	355.
		5.0	347.	5.0	324.
		3.0	308.	3.0	295.
		1.0	284.	1.0	282.
		0.0	281.	0.0	281.
		-1.0	284.	-1.0	286.
		-3.0	308.	-3.0	308.
		-5.0	347.	-5.0	338.
		-7.0	383.	-7.0	365.
		-9.0	405.	-9.0	382.
		-11.0	408.	-11.0	385.
		-13.0	394.	-13.0	374.
		-15.0	364.	-15.0	347.
		-17.0	320.	-17.0	304.
		-19.5	260.	-19.5	246.
		-22.5	184.	-22.5	174.
		-25.5	116.	-25.5	113.
		-29.0	60.	-29.0	62.
		-33.0	27.	-33.0	27.
		-37.5	10.	-37.5	10.
		-42.5	4.	-42.5	4.
		-47.5	2.	-47.5	2.
		-55.0	1.	-55.0	1.
		-65.0	1.	-65.0	1.
		-75.0	0.	-75.0	0.
		-85.0	0.	-85.0	0.
		-90.0	0.	-90.0	0.



Checked *B HYRE*
Approved *R BEATTIE*
Lighting Engineer

ALL CANDELA AND LUMEN VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



INDEPENDENT TESTING LABORATORIES, INC.
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CANDELA TABULATION

AVERAGE OF RIGHT AND LEFT SIDES

	0.0	1.0	3.0	5.0	7.0	9.0	11.0	13.0	15.0	17.0	19.5	22.5	25.5	29.0	33.0	37.5	42.5	47.5	55.0	65.0	75.0	85.0	90.0
90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.
55.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.
47.5	3.	3.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
42.5	5.	5.	5.	5.	5.	5.	4.	4.	4.	3.	3.	3.	2.	2.	2.	1.	1.	1.	1.	0.	0.	0.	0.
37.5	13.	13.	13.	12.	12.	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	2.	1.	1.	1.	0.	0.	0.	0.
33.0	33.	33.	32.	31.	29.	26.	24.	21.	18.	15.	12.	9.	7.	5.	3.	2.	1.	1.	1.	0.	0.	0.	0.
29.0	73.	73.	71.	68.	63.	57.	50.	44.	37.	30.	23.	17.	12.	8.	5.	3.	2.	1.	1.	0.	0.	0.	0.
25.5	130.	130.	126.	121.	113.	102.	90.	78.	65.	54.	41.	28.	19.	12.	7.	4.	2.	1.	1.	0.	0.	0.	0.
22.5	197.	196.	192.	184.	173.	158.	140.	121.	102.	84.	63.	43.	28.	16.	9.	5.	2.	1.	1.	0.	0.	0.	0.
19.5	269.	269.	264.	255.	241.	223.	200.	174.	147.	121.	92.	62.	40.	22.	12.	6.	3.	2.	1.	0.	0.	0.	0.
17.0	325.	324.	320.	311.	297.	278.	254.	224.	191.	158.	120.	82.	52.	28.	14.	6.	3.	2.	1.	0.	0.	0.	0.
15.0	360.	359.	356.	349.	336.	318.	294.	265.	228.	189.	144.	98.	63.	34.	16.	7.	3.	2.	1.	0.	0.	0.	0.
13.0	379.	379.	378.	374.	366.	351.	329.	300.	263.	222.	169.	115.	73.	39.	18.	8.	3.	2.	1.	1.	0.	0.	0.
11.0	384.	385.	387.	389.	386.	375.	356.	330.	294.	250.	194.	132.	84.	45.	20.	8.	4.	2.	1.	1.	0.	0.	0.
9.0	374.	376.	382.	392.	397.	393.	377.	353.	318.	274.	216.	149.	94.	50.	22.	9.	4.	2.	1.	1.	0.	0.	0.
7.0	355.	356.	367.	384.	399.	403.	393.	371.	337.	294.	233.	163.	103.	54.	24.	9.	4.	2.	1.	1.	0.	0.	0.
5.0	324.	327.	343.	369.	394.	406.	402.	384.	352.	308.	246.	173.	110.	58.	25.	10.	4.	2.	1.	1.	0.	0.	0.
3.0	295.	298.	320.	355.	387.	406.	407.	392.	361.	317.	256.	181.	115.	60.	26.	10.	4.	2.	1.	1.	0.	0.	0.
1.0	282.	285.	309.	347.	383.	405.	409.	395.	365.	321.	260.	184.	117.	60.	27.	10.	4.	2.	1.	1.	0.	0.	0.
0.0	281.	284.	308.	347.	383.	405.	408.	394.	364.	320.	260.	184.	116.	60.	27.	10.	4.	2.	1.	1.	0.	0.	0.
-1.0	286.	289.	312.	348.	384.	405.	408.	392.	363.	319.	258.	183.	116.	60.	27.	10.	4.	2.	1.	1.	0.	0.	0.
-3.0	308.	310.	330.	361.	390.	406.	405.	387.	355.	312.	252.	178.	112.	59.	26.	10.	4.	2.	1.	1.	0.	0.	0.
-5.0	338.	339.	354.	377.	398.	406.	399.	377.	344.	300.	241.	169.	106.	56.	25.	10.	4.	2.	1.	1.	0.	0.	0.
-7.0	365.	366.	376.	390.	401.	401.	387.	362.	326.	284.	226.	156.	98.	52.	23.	9.	4.	2.	1.	1.	0.	0.	0.
-9.0	382.	383.	389.	395.	397.	389.	369.	341.	305.	263.	206.	142.	89.	47.	21.	9.	4.	2.	1.	1.	0.	0.	0.
-11.0	385.	386.	389.	389.	382.	367.	343.	314.	278.	237.	184.	125.	79.	42.	19.	8.	4.	2.	1.	1.	0.	0.	0.
-13.0	374.	374.	372.	366.	354.	335.	312.	283.	247.	208.	159.	108.	68.	37.	17.	8.	3.	2.	1.	1.	0.	0.	0.
-15.0	347.	346.	342.	332.	317.	299.	276.	246.	212.	176.	134.	91.	57.	31.	15.	7.	3.	2.	1.	1.	0.	0.	0.
-17.0	304.	304.	299.	289.	275.	257.	234.	206.	175.	145.	110.	75.	47.	26.	13.	6.	3.	2.	1.	1.	0.	0.	0.
-19.5	246.	245.	240.	231.	219.	202.	181.	158.	133.	110.	84.	57.	36.	21.	11.	5.	3.	2.	1.	0.	0.	0.	0.
-22.5	174.	174.	170.	162.	152.	139.	124.	107.	91.	75.	57.	38.	25.	15.	8.	4.	2.	1.	1.	0.	0.	0.	0.
-25.5	113.	113.	110.	104.	97.	88.	78.	68.	58.	47.	36.	24.	17.	11.	6.	3.	2.	1.	1.	0.	0.	0.	0.
-29.0	62.	61.	60.	57.	53.	48.	43.	37.	31.	25.	20.	14.	10.	7.	4.	3.	2.	1.	1.	0.	0.	0.	0.
-33.0	27.	27.	27.	25.	24.	21.	19.	17.	15.	13.	10.	8.	6.	4.	3.	2.	1.	1.	1.	0.	0.	0.	0.
-37.5	10.	10.	10.	10.	9.	9.	8.	8.	7.	6.	5.	4.	3.	3.	2.	2.	1.	1.	1.	0.	0.	0.	0.
-42.5	4.	4.	4.	4.	4.	4.	4.	3.	3.	3.	2.	2.	2.	2.	2.	1.	1.	1.	1.	0.	0.	0.	0.
-47.5	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
-55.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
-65.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.
-75.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
-85.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
-90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

BEAM EDGE = 205. CP = 50% OF MAX
FIELD EDGE = 41. CP = 10% OF MAX

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CANDELA TABULATION - FIELD ONLY

AVERAGE OF RIGHT AND LEFT SIDES

	0.0	1.0	3.0	5.0	7.0	9.0	11.0	13.0	15.0	17.0	19.5	22.5	25.5	29.0	33.0	37.5	42.5	47.5	55.0	65.0	75.0	85.0	90.0	
90.0																								
85.0																								
75.0																								
65.0																								
55.0																								
47.5																								
42.5																								
37.5																								
33.0																								
29.0	73.	73.	71.	68.	63.	57.	50.	44.																
25.5	130.	130.	126.	121.	113.	102.	90.	78.	65.	54.	41.													
22.5	197.	196.	192.	184.	173.	158.	140.	121.	102.	84.	63.	43.												
19.5	269.	269.	264.	255.	241.	223.	200.	174.	147.	121.	92.	62.												
17.0	325.	324.	320.	311.	297.	278.	254.	224.	191.	158.	120.	82.	52.											
15.0	360.	359.	356.	349.	336.	318.	294.	265.	228.	189.	144.	98.	63.											
13.0	379.	379.	378.	374.	366.	351.	329.	300.	263.	222.	169.	115.	73.											
11.0	384.	385.	387.	389.	386.	375.	356.	330.	294.	250.	194.	132.	84.	45.										
9.0	374.	376.	382.	392.	397.	393.	377.	353.	318.	274.	216.	149.	94.	50.										
7.0	355.	356.	367.	384.	399.	403.	393.	371.	337.	294.	233.	163.	103.	54.										
5.0	324.	327.	343.	369.	394.	406.	402.	384.	352.	308.	246.	173.	110.	58.										
3.0	295.	298.	320.	355.	387.	406.	407.	392.	361.	317.	256.	181.	115.	60.										
1.0	282.	285.	309.	347.	383.	405.	409.	395.	365.	321.	260.	184.	117.	60.										
0.0	281.	284.	308.	347.	383.	405.	408.	394.	364.	320.	260.	184.	116.	60.										
-1.0	286.	289.	312.	348.	384.	405.	408.	392.	363.	319.	258.	183.	116.	60.										
-3.0	308.	310.	330.	361.	390.	406.	405.	387.	355.	312.	252.	178.	112.	59.										
-5.0	338.	339.	354.	377.	398.	406.	399.	377.	344.	300.	241.	169.	106.	56.										
-7.0	365.	366.	376.	390.	401.	401.	387.	362.	326.	284.	226.	156.	98.	52.										
-9.0	382.	383.	389.	395.	397.	389.	369.	341.	305.	263.	206.	142.	89.	47.										
-11.0	385.	386.	389.	389.	382.	367.	343.	314.	278.	237.	184.	125.	79.	42.										
-13.0	374.	374.	372.	366.	354.	335.	312.	283.	247.	208.	159.	108.	68.											
-15.0	347.	346.	342.	332.	317.	299.	276.	246.	212.	176.	134.	91.	57.											
-17.0	304.	304.	299.	289.	275.	257.	234.	206.	175.	145.	110.	75.	47.											
-19.5	246.	245.	240.	231.	219.	202.	181.	158.	133.	110.	84.	57.												
-22.5	174.	174.	170.	162.	152.	139.	124.	107.	91.	75.	57.													
-25.5	113.	113.	110.	104.	97.	88.	78.	68.	58.	47.														
-29.0	62.	61.	60.	57.	53.	48.	43.																	
-33.0																								
-37.5																								
-42.5																								
-47.5																								
-55.0																								
-65.0																								
-75.0																								
-85.0																								
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LUMEN TABULATION

AVERAGE OF RIGHT AND LEFT SIDES

	0	2	4	6	8	10	12	14	16	18	21	24	27	31	35	40	45	50	60	70	80	90	TOTAL
90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
35	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
31	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
27	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
24	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
21	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
18	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
16	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
14	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
12	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
10	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
8	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
6	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
0	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
-2	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
-4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
-6	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
-8	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
-10	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
-12	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
-14	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
-16	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
-18	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
-21	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
-24	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
-27	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
-31	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
-35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
-40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
-45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
-50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
-60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
-70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10.2	10.3	10.4	10.4	10.1	9.5	8.7	7.6	6.5	7.5	5.1	3.2	2.3	1.1	0.6	0.3	0.2	0.2	0.0	0.0	0.0	0.0	104.2

LUMEN TOTAL THIS PAGE = 104.2



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REPORT NUMBER: ITL71486
 ISSUE DATE: 01/23/12
 PREPARED FOR: RAB LIGHTING, INC.

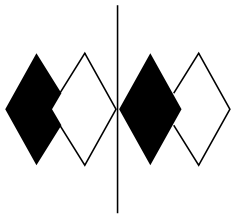
PAGE: 5 OF 7

LUMEN TABULATION - FIELD ONLY

AVERAGE OF RIGHT AND LEFT SIDES

	0	2	4	6	8	10	12	14	16	18	21	24	27	31	35	40	45	50	60	70	80	90	TOTAL
90																							0.0
80																							0.0
70																							0.0
60																							0.0
50																							0.0
45																							0.0
40																							0.0
35																							0.0
31																							0.0
27	0.2	0.2	0.2	0.2	0.1	0.1	0.1																1.0
24	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1													1.7
21	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1												2.7
18	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2												3.8
16	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1											3.3
14	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1											3.8
12	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.1											4.2
10	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.1										4.6
8	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1										4.8
6	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1										4.9
4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1										5.0
2	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1										5.0
0	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1										4.9
-2	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1										4.9
-4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1										4.9
-6	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1										4.9
-8	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.2	0.1										4.9
-10	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.2	0.1	0.1										4.7
-12	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.1										4.5
-14	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.1											4.0
-16	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1											3.5
-18	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1											3.0
-21	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1												3.5
-24	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1													2.3
-27	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1														1.4
-31	0.1	0.1	0.1	0.1	0.1	0.1																	0.8
-35																							0.0
-40																							0.0
-45																							0.0
-50																							0.0
-60																							0.0
-70																							0.0
-80																							0.0
-90																							0.0
	9.9	10.0	10.1	10.1	9.8	9.3	8.4	7.3	6.2	7.1	4.6	2.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.9

LUMEN TOTAL THIS PAGE = 96.9

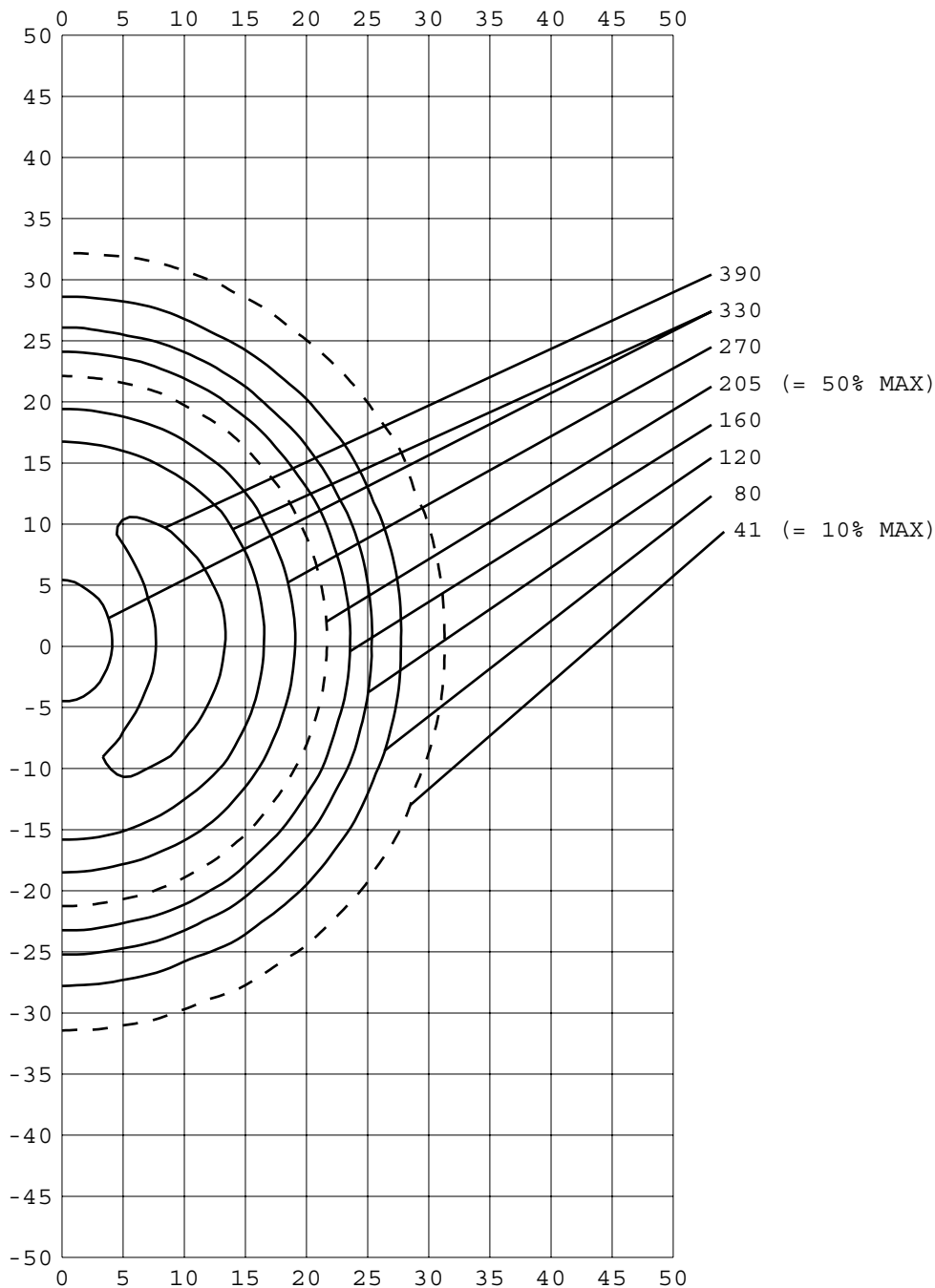


REPORT NUMBER: ITL71486
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PAGE: 6 OF 7

ISOCANDELA CURVES

AVERAGE OF RIGHT AND LEFT SIDES





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PAGE: 7 OF 7

ADDRESS: 170 LUDLOW AVE
NORTHVALE, NJ 07647

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REPORT NUMBER: ITL71492
DATE: 01/26/12
PREPARED FOR: RAB LIGHTING, INC.
CATALOG NUMBER: LFLED5Y / LFLED5YBR / LFLED5YMBR (FLOOD SERIES)

ADDRESS: 170 LUDLOW AVE NORTHVALE, NJ 07647

LUMINAIRE: CAST METAL HOUSING, CAST METAL CIRCUIT BOARD MOUNTING BASE, ONE CIRCUIT BOARD WITH ONE LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH, BLACK RUBBER REFLECTOR MOUNTING COLLAR, CLEAR FLAT MICRO-PRISMATIC GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME. LENS PRISMS OUT.

LAMP: ONE WHITE MULTI-CHIP LIGHT EMITTING DIODE (LED) CONTAINING LEDS ARRANGED IN AN ARRAY OF 3 LINEAR VERTICAL ROWS, LEDS AIMED AT THE HORIZON.

DRIVER: LINKCOM BPHE005C401

ORIENTATION IN SPHERE: AIMED AT HORIZON

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LED DRIVER. LED DRIVER INFORMATION PROVIDED BY CLIENT.

INSTRUMENTS: Kikusui PCR500L AC Power Source Calibration Due: N/A
Yokogawa WT210 Digital Power Meter #4 04/04/12
Optronic Laboratories OL770 Spectroradiometer 03/24/12
ITL 1.5 meter Diameter Integrating Sphere, 4PI Geometry 03/24/12

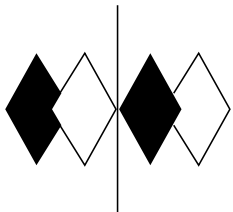
OBJECT OF TEST: Measure the Absolute Flux in lumens*, Total Radiant Flux*, Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y; u'v'), ANSI C78.377 Duv, and electrical data including Power Factor (PF) and Total Harmonic Distortion (THD) to the test sample. Report Off-State Power.

PROCEDURE: The test sample was provided by the customer and had an unknown number of burn hours. The test sample was mounted inside the integrating sphere and allowed to stabilize. After stabilization occurred, measurements were taken. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the test sample operating at 120VAC input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. All data are traceable to the National Institute of Standards and Technology. Off-State Power was reported with no voltage applied to the sample.

RESULTS: (continued subsequent pages)

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Checked T BERGER
Approved N GULLY
Lighting Engineer



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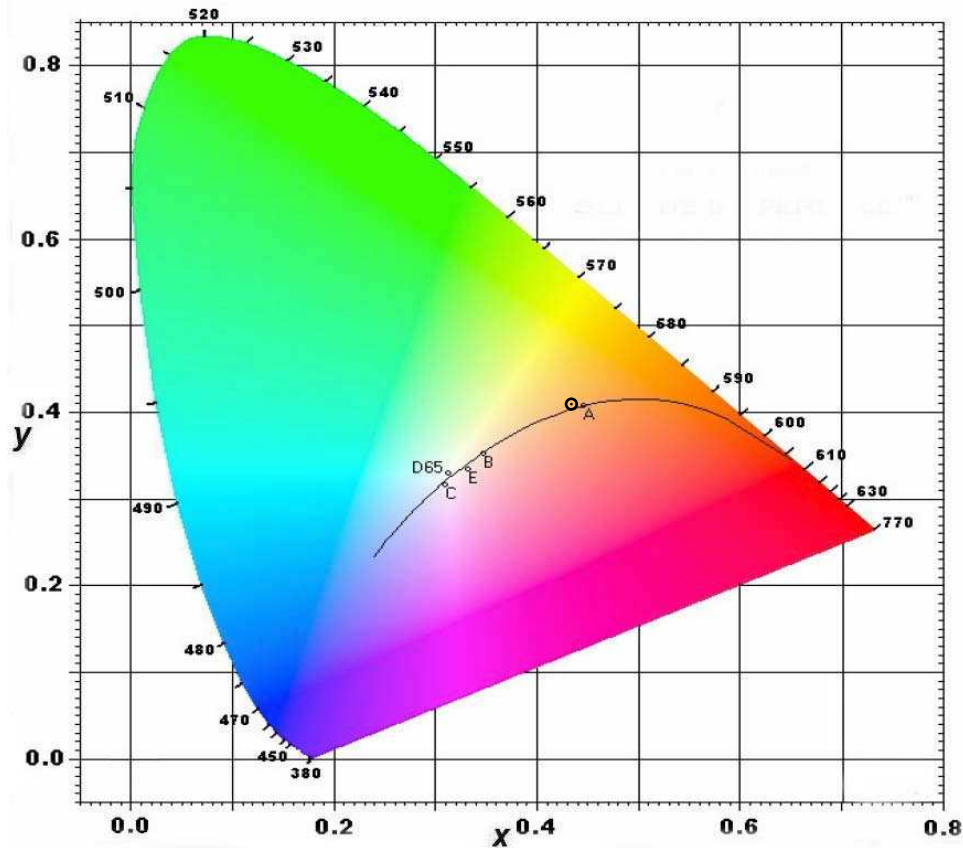
NVLAP
NVLAP LAB CODE: 200925-0

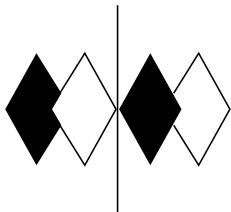
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CIE Chromaticity Diagram





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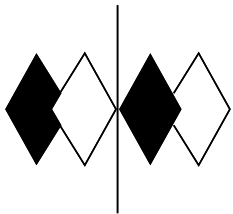
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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	208.0 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4338
Chromaticity Ordinate y	0.4090
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2465
Chromaticity Ordinate v'	0.5228
Correlated Color Temp CCT (K)	3093
Color Rendering Index (CRIa)	86
Color Rendering Index 1 (Light greyish red)	86
Color Rendering Index 2 (Dark greyish yellow)	88
Color Rendering Index 3 (Strong yellowish green)	88
Color Rendering Index 4 (Moderate yellowish green)	87
Color Rendering Index 5 (Light bluish green)	84
Color Rendering Index 6 (Light blue)	82
Color Rendering Index 7 (Light violet)	91
Color Rendering Index 8 (Light reddish purple)	80
Color Rendering Index 9 (Strong red)	49
Color Rendering Index 10 (Strong yellow)	70
Color Rendering Index 11 (Strong green)	85
Color Rendering Index 12 (Strong blue)	62
Color Rendering Index 13 (Light yellowish pink (skin))	85
Color Rendering Index 14 (Moderate olive green (leaf))	92
ANSI C78.377-2008 Duv	0.002
Total Radiant Flux (milliWatts)	171
ELECTRICAL FOR SPECTRORADIOMETRIC TEST	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.097
Input Power (Watts)	5.11
Input Power Factor (%)	43.9
Input Current THD (%)	198.0
Input Voltage THD (%)	0.1
Off-State Power (Watts)	0.0

*NOTE: Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.



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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.041	515	1.900	650	3.381
385	0.043	520	2.116	655	3.214
390	0.045	525	2.307	660	3.029
395	0.048	530	2.471	665	2.834
400	0.054	535	2.608	670	2.629
405	0.068	540	2.724	675	2.428
410	0.096	545	2.826	680	2.219
415	0.133	550	2.923	685	2.018
420	0.188	555	3.003	690	1.827
425	0.322	560	3.078	695	1.642
430	0.545	565	3.157	700	1.462
435	0.896	570	3.233	705	1.291
440	1.460	575	3.302	710	1.131
445	2.166	580	3.367	715	0.985
450	2.232	585	3.426	720	0.858
455	1.550	590	3.488	725	0.746
460	1.071	595	3.555	730	0.646
465	0.831	600	3.612	735	0.562
470	0.629	605	3.668	740	0.491
475	0.527	610	3.726	745	0.426
480	0.519	615	3.777	750	0.368
485	0.574	620	3.811	755	0.315
490	0.694	625	3.820	760	0.270
495	0.891	630	3.803	765	0.231
500	1.132	635	3.748	770	0.199
505	1.396	640	3.657	775	0.172
510	1.659	645	3.531	780	0.148

