

REPORT NUMBER: ITL87584-GONIOPHOTOMETRY

PAGE: 1 OF 9

ISSUE DATE: 06/16/16

PREPARED FOR: RAB LIGHTING INC.

CATALOG NUMBER: FSLEDV3N/120 - FSLEDV3N/120/TL

LUMINAIRE: CAST BROWN PAINTED METAL HOUSING/FACEPLATE, CAST BROWN PAINTED METAL CIRCUIT BOARD MOUNTING BASE WITH UNFINISHED CIRCUIT BOARD MOUNTING SURFACE, 1 WHITE CIRCUIT BOARD WITH 3 LEDS, CLEAR FLAT GLASS LENS.

LAMPS: THREE WHITE MULTI-CHIP LIGHT EMITTING DIODES (LEDs), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 120.0 VOLTS, 3.10 WATTS, 0.0271 AMPS

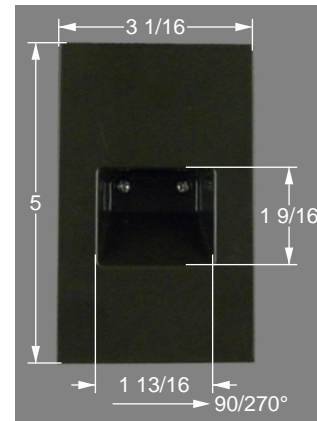
MOUNTING: RECESSED WALL

LED DRIVER: INTEGRAL TO CIRCUIT BOARD

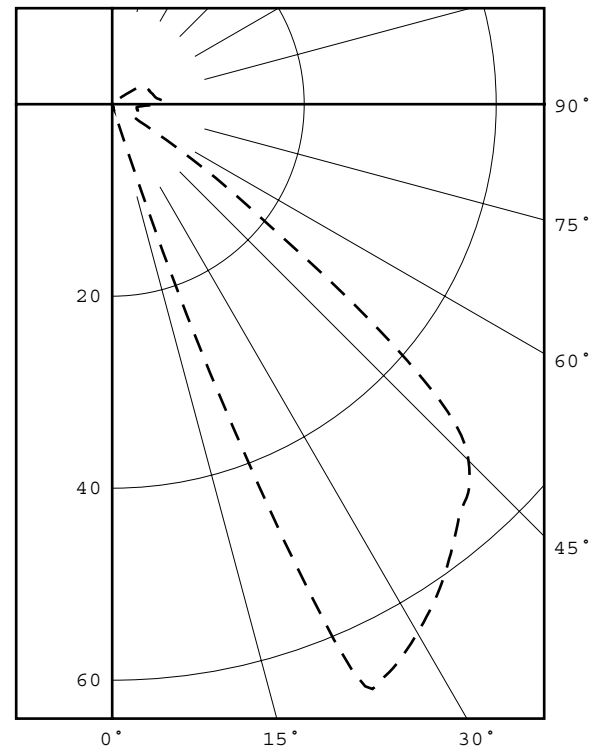
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LUMINAIRE.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET



CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
15	0.4	0.1	0.0	0.0	0.0	0.1
25	66.2	2.5	0.0	0.0	0.0	5.7
35	60.2	47.3	0.0	0.0	0.0	10.7
45	52.5	39.0	0.0	0.0	0.0	11.3
55	11.7	28.7	0.0	0.0	0.0	6.3
65	2.4	4.8	0.0	0.0	0.0	1.3
75	2.8	0.8	0.0	0.0	0.0	0.6
85	2.8	0.8	0.0	0.0	0.0	0.6
90	4.6	0.8	0.0	0.0	0.0	0.0
95	5.1	0.7	0.0	0.0	0.0	0.9
105	4.3	0.6	0.0	0.0	0.0	0.7
115	4.0	0.4	0.0	0.0	0.0	0.6
125	2.2	0.3	0.0	0.0	0.0	0.3
135	0.5	0.2	0.0	0.0	0.0	0.1
145	0.3	0.1	0.0	0.0	0.0	0.0
155	0.2	0.1	0.0	0.0	0.0	0.0
165	0.1	0.1	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0	0.0



LEGEND:
0-deg -----
90-deg _____
180-deg - . - . - .

ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	5.8	14.9
0- 40	16.5	42.1
0- 60	34.1	86.9
0- 90	36.6	93.2
90-120	2.2	5.6
90-130	2.5	6.4
90-150	2.6	6.7
90-180	2.7	6.8
0-180	39.2	100.0

EFFICACY = 12.6 lm/W

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG

BEAM ANGLE (50%) : 30.1 X N/A DEGREES

FIELD ANGLE (10%) : 38.7 X N/A DEGREES

Checked J. VILLANUEVA
Approved R. BEATTIE
Lighting Engineer



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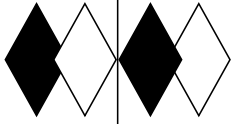
INDEPENDENT TESTING LABORATORIES, INC.
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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	40688.	43179.	0.
55	7885.	27803.	0.
65	1431.	4133.	0.
75	1607.	653.	0.
85	1550.	620.	0.



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CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	112.5	135.0	157.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.0	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
12.5	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
15.0	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5	1.3	1.2	0.7	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	29.8	28.5	15.1	2.8	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5	60.4	59.8	52.2	39.7	6.2	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	66.2	66.4	66.5	63.2	42.4	2.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
27.5	65.1	65.3	65.5	65.8	64.5	21.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0
30.0	63.6	63.9	64.0	64.3	65.9	39.2	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0
32.5	62.0	62.2	62.4	62.7	64.2	47.8	14.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
35.0	60.2	60.4	60.5	60.8	62.2	47.3	20.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
37.5	58.2	58.4	58.5	58.7	60.0	45.9	21.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0
40.0	56.2	56.3	56.3	56.4	57.6	43.8	21.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0
42.5	54.9	54.9	54.6	54.0	54.9	41.4	20.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0
45.0	52.5	52.4	52.5	52.2	52.1	39.0	19.7	0.9	0.1	0.0	0.0	0.0	0.0	0.0
47.5	47.4	47.4	48.6	49.5	49.3	36.5	18.5	1.2	0.1	0.0	0.0	0.0	0.0	0.0
50.0	35.3	35.7	40.3	44.6	46.2	34.0	17.1	1.5	0.1	0.0	0.0	0.0	0.0	0.0
52.5	20.0	20.2	24.1	34.6	41.9	31.5	15.8	1.5	0.1	0.0	0.0	0.0	0.0	0.0
55.0	11.7	12.0	15.0	19.6	33.2	28.7	14.6	1.4	0.1	0.0	0.0	0.0	0.0	0.0
57.5	4.2	4.2	6.2	11.7	18.3	25.0	13.2	1.3	0.1	0.0	0.0	0.0	0.0	0.0
60.0	2.6	2.5	2.8	3.7	10.4	18.3	11.9	1.1	0.1	0.0	0.0	0.0	0.0	0.0
62.5	2.4	2.4	2.3	1.9	3.1	11.1	10.1	0.9	0.1	0.0	0.0	0.0	0.0	0.0
65.0	2.4	2.4	2.3	1.7	1.2	4.8	6.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0
67.5	2.7	2.6	2.4	1.7	1.1	1.1	1.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0
70.0	2.9	2.8	2.5	1.7	1.1	0.9	0.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0
72.5	2.9	2.8	2.5	1.7	1.0	0.8	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0
75.0	2.8	2.8	2.5	1.6	1.0	0.8	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0
77.5	2.7	2.7	2.4	1.5	1.0	0.8	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
80.0	2.6	2.6	2.4	1.5	1.0	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
82.5	2.6	2.6	2.4	1.5	1.0	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
85.0	2.8	2.8	2.6	1.6	1.0	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
87.5	3.5	3.5	3.4	1.9	1.0	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
90.0	4.6	4.5	4.3	2.4	1.0	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
92.5	5.1	5.1	4.7	2.6	1.0	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
95.0	5.1	5.0	4.7	2.5	0.9	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
97.5	4.7	4.7	4.4	2.4	0.9	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
100.0	4.5	4.5	4.2	2.3	0.8	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
102.5	4.4	4.4	4.1	2.2	0.8	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
105.0	4.3	4.2	3.9	2.2	0.8	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
107.5	4.2	4.2	3.8	2.1	0.8	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
110.0	4.1	4.1	3.8	2.1	0.8	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
112.5	4.1	4.1	3.8	2.0	0.8	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
115.0	4.0	4.0	3.7	2.0	0.7	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
117.5	3.9	3.9	3.5	1.9	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
120.0	3.6	3.6	3.3	1.7	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
122.5	3.3	3.2	2.7	1.2	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
125.0	2.2	2.2	1.5	0.7	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
127.5	1.1	1.1	0.8	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
130.0	0.7	0.7	0.6	0.5	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
132.5	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
135.0	0.5	0.5	0.4	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
137.5	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
140.0	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
142.5	0.3	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
145.0	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
147.5	0.2	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
150.0	0.2	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
152.5	0.2	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
155.0	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
157.5	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



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CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	112.5	135.0	157.5
160.0	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
162.5	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
165.0	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
167.5	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
170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION
LATERAL ANGLE

	180.0
0.0	0.0
2.5	0.0
5.0	0.0
7.5	0.0
10.0	0.0
12.5	0.0
15.0	0.0
17.5	0.0
20.0	0.0
22.5	0.0
25.0	0.0
27.5	0.0
30.0	0.0
32.5	0.0
35.0	0.0
37.5	0.0
40.0	0.0
42.5	0.0
45.0	0.0
47.5	0.0
50.0	0.0
52.5	0.0
55.0	0.0
57.5	0.0
60.0	0.0
62.5	0.0
65.0	0.0
67.5	0.0
70.0	0.0
72.5	0.0
75.0	0.0
77.5	0.0
80.0	0.0
82.5	0.0
85.0	0.0
87.5	0.0
90.0	0.0
92.5	0.0
95.0	0.0
97.5	0.0
100.0	0.0
102.5	0.0
105.0	0.0
107.5	0.0
110.0	0.0
112.5	0.0
115.0	0.0
117.5	0.0
120.0	0.0
122.5	0.0
125.0	0.0
127.5	0.0
130.0	0.0
132.5	0.0
135.0	0.0
137.5	0.0
140.0	0.0
142.5	0.0
145.0	0.0
147.5	0.0
150.0	0.0
152.5	0.0
155.0	0.0
157.5	0.0



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CANDELA DISTRIBUTION
LATERAL ANGLE

	180.0
160.0	0.0
162.5	0.0
165.0	0.0
167.5	0.0
170.0	0.0
172.5	0.0
175.0	0.0
177.5	0.0
180.0	0.0



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0.0
5- 10	0.0
10- 15	0.0
15- 20	0.1
20- 25	1.8
25- 30	3.9
30- 35	5.1
35- 40	5.6
40- 45	5.8
45- 50	5.6
50- 55	4.1
55- 60	2.1
60- 65	0.9
65- 70	0.4
70- 75	0.3
75- 80	0.3
80- 85	0.3
85- 90	0.3
90- 95	0.4
95-100	0.4
100-105	0.4
105-110	0.4
110-115	0.3
115-120	0.3
120-125	0.2
125-130	0.1
130-135	0.1
135-140	0.0
140-145	0.0
145-150	0.0
150-155	0.0
155-160	0.0
160-165	0.0
165-170	0.0
170-175	0.0
175-180	0.0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	0.0
0- 20	0.1
0- 30	5.8
0- 40	16.5
0- 50	27.8
0- 60	34.1
0- 70	35.4
0- 80	36.0
0- 90	36.6
0-100	37.4
0-110	38.2
0-120	38.8
0-130	39.1
0-140	39.2
0-150	39.2
0-160	39.2
0-170	39.2
0-180	39.2



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REPORT NUMBER: ITL87584-GONIOPHOTOMETRY

PAGE: 8 OF 9

ISSUE DATE: 06/16/16

PREPARED FOR: RAB LIGHTING INC.

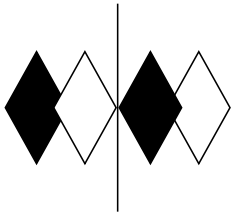
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	117	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	108	104	100	97	105	101	98	95	96	93	90	91	88	86	86	86	84	83	80
2	99	92	85	80	96	89	83	79	85	80	76	80	77	73	76	73	71	68	68
3	90	81	73	67	87	79	71	66	75	69	64	71	66	62	68	64	60	58	58
4	83	71	63	56	80	69	61	55	66	59	54	63	57	52	60	55	51	49	49
5	75	63	54	47	73	61	53	47	58	51	46	56	49	45	53	48	43	41	41
6	69	56	47	40	66	54	46	40	52	44	39	49	43	38	47	42	37	35	35
7	63	49	41	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30	30
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	25	25
9	53	40	31	25	51	39	31	25	37	30	25	35	29	24	34	28	24	22	22
10	49	36	27	22	48	35	27	22	33	26	21	32	26	21	31	25	21	19	19

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.



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PAGE: 9 OF 9

ADDRESS: 170 LUDLOW AVE.
NORTHVALE, NJ 07647

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REPORT NUMBER: ITL87584-SPHERE
DATE: 06/20/16
PREPARED FOR: RAB LIGHTING INC.
CATALOG NUMBER: FSLEDV3N/120 - FSLEDV3N/120/TL

ADDRESS: 170 LUDLOW AVE.
NORTHVALE, NJ 07647

LUMINAIRE: CAST BROWN PAINTED METAL HOUSING/FACEPLATE, CAST BROWN PAINTED METAL
CIRCUIT BOARD MOUNTING BASE WITH UNFINISHED CIRCUIT BOARD MOUNTING
SURFACE, 1 WHITE CIRCUIT BOARD WITH 3 LEDS, CLEAR FLAT GLASS LENS.

LAMP: THREE WHITE MULTI-CHIP LIGHT EMITTING DIODES (LEDs), VERTICAL
BASE-UP POSITION.

DRIVER: INTEGRAL TO CIRCUIT BOARD

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT
VOLTAGE (120VAC, 60Hz) TO THE LUMINAIRE.

Calibration Due:

INSTRUMENTS: Associated Power Technologies APT5020 AC Power Source N/A
Yokogawa WT210 Digital Power Meter #4 04/07/17
Ocean Optics QE65000 Spectroradiometer 04/19/17
ITL 1.5m Diameter Integrating Sphere S15-2, 4PI Geometry 04/19/17

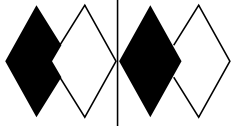
OBJECT OF TEST: Measure the Absolute Flux in lumens*, Spectral Power Distribution (SPD),
Correlated Color Temperature (CCT), Color Rendering Index (CRIa,1-14),
Chromaticity Coordinates (x,y; u',v'), ANSI C78.377 Duv, Total Radiant
Flux*, Scotopic / Photopic Lumen Ratio, and electrical data including
ANSI C82.77-2002 Power Factor (PF) and Total Harmonic Distortion (THD)
to the test sample.

PROCEDURE: The test sample was provided by the customer and had an unknown number
of operating 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.

RESULTS: (continued subsequent pages)

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FEDERAL GOVERNMENT.

Checked N WHITE
Approved P O'CONNOR
Sphere Lab Supervisor



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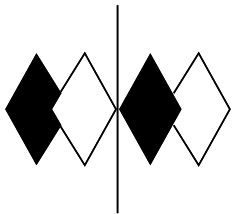
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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	39.2 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3726
Chromaticity Ordinate y	0.3696
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2228
Chromaticity Ordinate v'	0.4972
Correlated Color Temp CCT (K)	4170
ANSI C78.377-2008 Duv	-0.001
Total Radiant Flux (milliWatts)	122 *
Scotopic / Photopic Lumen Ratio	1.836
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.027
Input Power (Watts)	3.10
Input Power Factor (%)	95.7
Input Current THD (%)	31.0
Input Voltage THD (%)	0.3
EFFICACY (lumens/Watt)	12.6

COLOR RENDERING INDICES	CRI
Ra (Average 1-8)	85
R1 Light greyish red	84
R2 Dark greyish yellow	93
R3 Strong yellowish green	96
R4 Moderate yellowish green	82
R5 Light bluish green	84
R6 Light blue	89
R7 Light violet	85
R8 Light reddish purple	67
R9 Strong red	17
R10 Strong yellow	82
R11 Strong green	81
R12 Strong blue	65
R13 Light yellowish pink (skin)	86
R14 Moderate olive green (leaf)	98

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL87584-GONIOPHOTOMETRY



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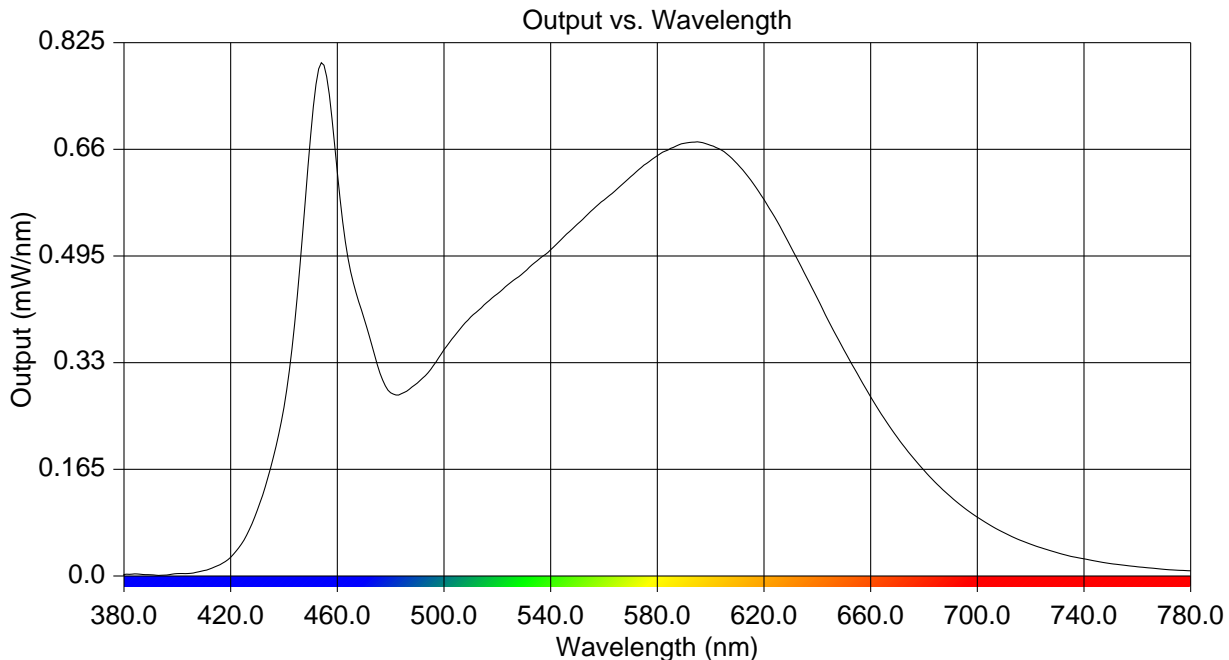
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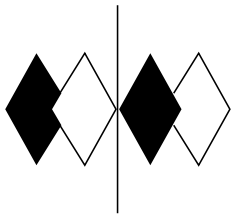
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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.002	515	0.419	650	0.350
385	0.003	520	0.436	655	0.313
390	0.002	525	0.454	660	0.277
395	0.001	530	0.470	665	0.244
400	0.004	535	0.488	670	0.214
405	0.004	540	0.505	675	0.188
410	0.008	545	0.525	680	0.164
415	0.016	550	0.544	685	0.142
420	0.029	555	0.564	690	0.123
425	0.056	560	0.582	695	0.106
430	0.102	565	0.599	700	0.091
435	0.168	570	0.618	705	0.078
440	0.261	575	0.636	710	0.067
445	0.434	580	0.650	715	0.057
450	0.682	585	0.662	720	0.049
455	0.790	590	0.669	725	0.042
460	0.624	595	0.672	730	0.036
465	0.471	600	0.666	735	0.030
470	0.399	605	0.656	740	0.027
475	0.327	610	0.637	745	0.023
480	0.283	615	0.613	750	0.019
485	0.284	620	0.582	755	0.017
490	0.298	625	0.548	760	0.014
495	0.319	630	0.510	765	0.012
500	0.350	635	0.470	770	0.010
505	0.377	640	0.430	775	0.009
510	0.401	645	0.388	780	0.008





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CIE Chromaticity Diagram

