

**REPORT NUMBER:** ITL90472-GONIOPHOTOMETRY

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**ISSUE DATE:** 05/18/18

**PREPARED FOR:** BOCK LIGHTING

**ADDRESS:** 2476 EDISON BLVD  
TWINSBURG, OH 44087

**CATALOG NUMBER:** BRL12-LBA01-1-3000LM-40K

**LUMINAIRE:** FABRICATED WHITE PAINTED METAL DRIVER HOUSING, EXTRUDED BLACK FINISHED FINNED METAL HEAT SINK WITH SUNON HA60151V4-000U-999 COOLING FAN ON TOP, ONE CIRCUIT BOARD WITH ONE LED, MOLDED WHITE PLASTIC LED SURROUND, INTERIOR FROSTED PLASTIC LENS SUSPENDED BELOW LED WITH 4 SEMI-SPECULAR METAL STANDOFFS, WHITE PAINTED FLAT METAL REFLECTOR MOUNTING COLLAR, CLEAR PLASTIC REFLECTOR WITH LINEAR EXTERIOR VERTICAL PRISMS. OPEN BOTTOM.

**LAMP:** ONE WHITE MULTI-CHIP LIGHT EMITTING DIODE (LED), VERTICAL BASE-UP POSITION.

**INPUT ELECTRICAL:** 120.1 VOLTS, 25.9 WATTS, 0.216 AMPS

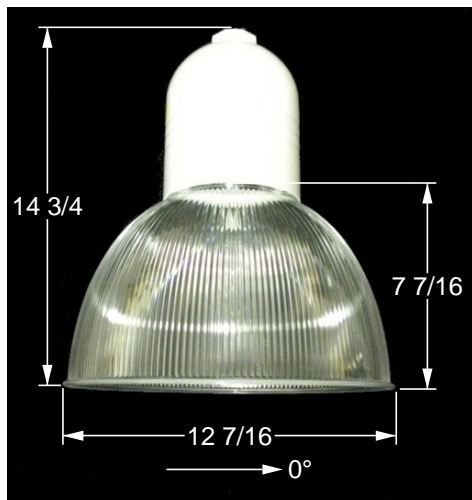
**MOUNTING:** PENDANT

**LED DRIVER:** ADVANCE XI036C100V054DSM5, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST. CLIENT STATES DRIVER PROGRAMMED FOR 660mA OUTPUT. INVENTRONICS DHV-003S012SS DC/DC CONVERTER ATTACHED TO OUTPUT LEADS.

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

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



THIS REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.

Approved           C STOUT

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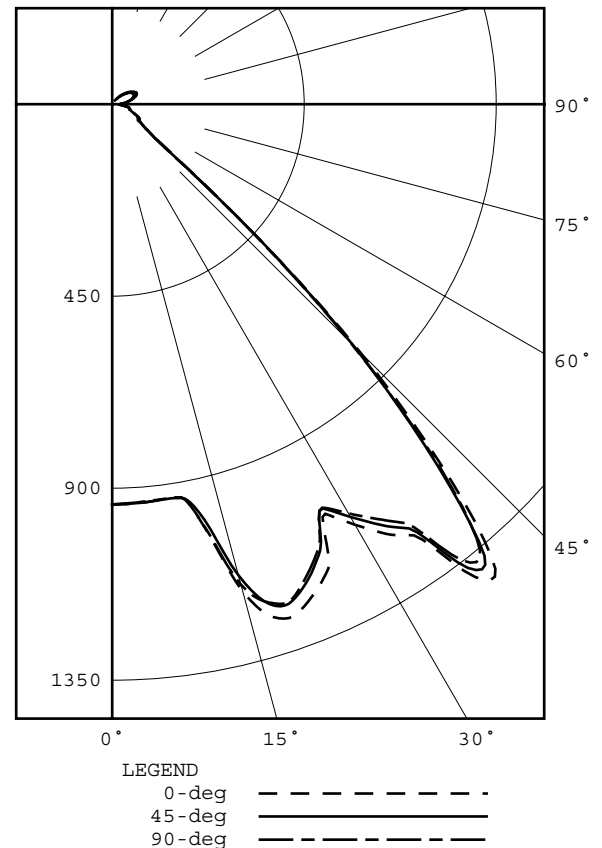
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CANDELA DISTRIBUTION						FLUX
	0.0	22.5	45.0	67.5	90.0	
0	938	938	938	938	938	
5	936	936	936	934	934	89
15	1182	1164	1143	1158	1166	324
25	1200	1173	1154	1159	1146	533
35	1234	1210	1214	1217	1199	786
45	820	796	797	796	789	592
55	91	92	90	88	86	92
65	65	65	64	63	62	62
75	43	41	42	41	40	45
85	24	23	21	21	22	26
90	20	19	19	19	19	
95	30	28	27	28	29	31
105	52	49	48	50	51	52
115	62	58	56	59	63	57
125	50	47	46	48	50	43
135	29	28	27	27	28	22
145	11	11	11	11	11	7
155	5	5	5	5	5	3
165	5	5	5	5	5	1
175	6	6	6	6	6	1
180	7	7	7	7	7	

ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	947	34.2
0- 40	1733	62.7
0- 60	2417	87.4
0- 90	2549	92.2
90-120	140	5.1
90-130	183	6.6
90-150	212	7.7
90-180	216	7.8
0-180	2766	100.0

EFFICACY = 106.8 lm/W  
 CIE TYPE - DIRECT  
 PLANE : 0-DEG 90-DEG  
 SPACING CRITERIA : 1.82 1.80  
 BEAM ANGLE (50%) : 91.7 X 91.4 DEGREES  
 FIELD ANGLE (10%) : 103.7 X 103.0 DEGREES





# itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.  
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

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LUMINOUS DIAMETER: 12.438  
HEIGHT OF SIDE : 7.438

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	8399.	8164.	8082.
55	970.	959.	916.
65	745.	734.	711.
75	552.	539.	513.
85	362.	317.	332.



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CANDELA DISTRIBUTION  
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	938	938	938	938	938
5.0	936	936	936	934	934
10.0	936	936	937	938	937
15.0	1182	1164	1143	1158	1166
20.0	1270	1254	1238	1236	1234
25.0	1200	1173	1154	1159	1146
30.0	1138	1123	1117	1117	1107
35.0	1234	1210	1214	1217	1199
40.0	1382	1328	1337	1337	1329
45.0	820	796	797	796	789
50.0	206	203	194	188	183
55.0	91	92	90	88	86
60.0	72	73	74	72	69
65.0	65	65	64	63	62
70.0	49	49	48	48	46
75.0	43	41	42	41	40
80.0	37	36	34	34	36
85.0	24	23	21	21	22
90.0	20	19	19	19	19
95.0	30	28	27	28	29
100.0	42	39	38	39	40
105.0	52	49	48	50	51
110.0	60	56	54	57	60
115.0	62	58	56	59	63
120.0	58	55	53	55	58
125.0	50	47	46	48	50
130.0	40	38	36	38	39
135.0	29	28	27	27	28
140.0	18	18	18	18	18
145.0	11	11	11	11	11
150.0	7	7	7	7	7
155.0	5	5	5	5	5
160.0	5	5	5	5	5
165.0	5	5	5	5	5
170.0	6	5	5	5	5
175.0	6	6	6	6	6
180.0	7	7	7	7	7



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5-DEGREE  
 ZONAL LUMEN SUMMARY

0- 5	22
5- 10	67
10- 15	123
15- 20	201
20- 25	253
25- 30	280
30- 35	345
35- 40	442
40- 45	399
45- 50	192
50- 55	56
55- 60	36
60- 65	34
65- 70	28
70- 75	23
75- 80	21
80- 85	15
85- 90	11
90- 95	13
95-100	18
100-105	24
105-110	28
110-115	29
115-120	28
120-125	24
125-130	19
130-135	13
135-140	8
140-145	5
145-150	3
150-155	2
155-160	1
160-165	1
165-170	1
170-175	0
175-180	0

10-DEGREE  
 ZONAL LUMEN SUMMARY

0- 10	89
0- 20	413
0- 30	947
0- 40	1733
0- 50	2325
0- 60	2417
0- 70	2479
0- 80	2523
0- 90	2549
0-100	2580
0-110	2632
0-120	2689
0-130	2732
0-140	2754
0-150	2761
0-160	2764
0-170	2765
0-180	2766



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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	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	109	106	102	100	106	103	100	97	97	95	93	92	90	89	87	86	85	82
2	102	95	90	86	99	93	88	84	88	84	81	84	81	78	80	78	75	73
3	95	86	80	74	92	84	78	73	80	75	71	77	72	69	73	70	67	65
4	88	78	71	65	85	76	70	65	73	67	63	70	65	61	67	63	60	58
5	82	71	63	58	79	69	62	57	67	61	56	64	59	55	61	57	53	51
6	76	65	57	51	74	63	56	51	61	55	50	59	53	49	56	52	48	46
7	71	59	51	46	69	58	51	46	56	49	45	54	48	44	52	47	43	41
8	66	54	47	41	64	53	46	41	51	45	40	49	44	40	48	43	39	37
9	62	50	42	37	60	49	42	37	47	41	37	46	40	36	44	39	35	34
10	58	46	39	34	56	45	38	34	44	38	33	42	37	33	41	36	32	31

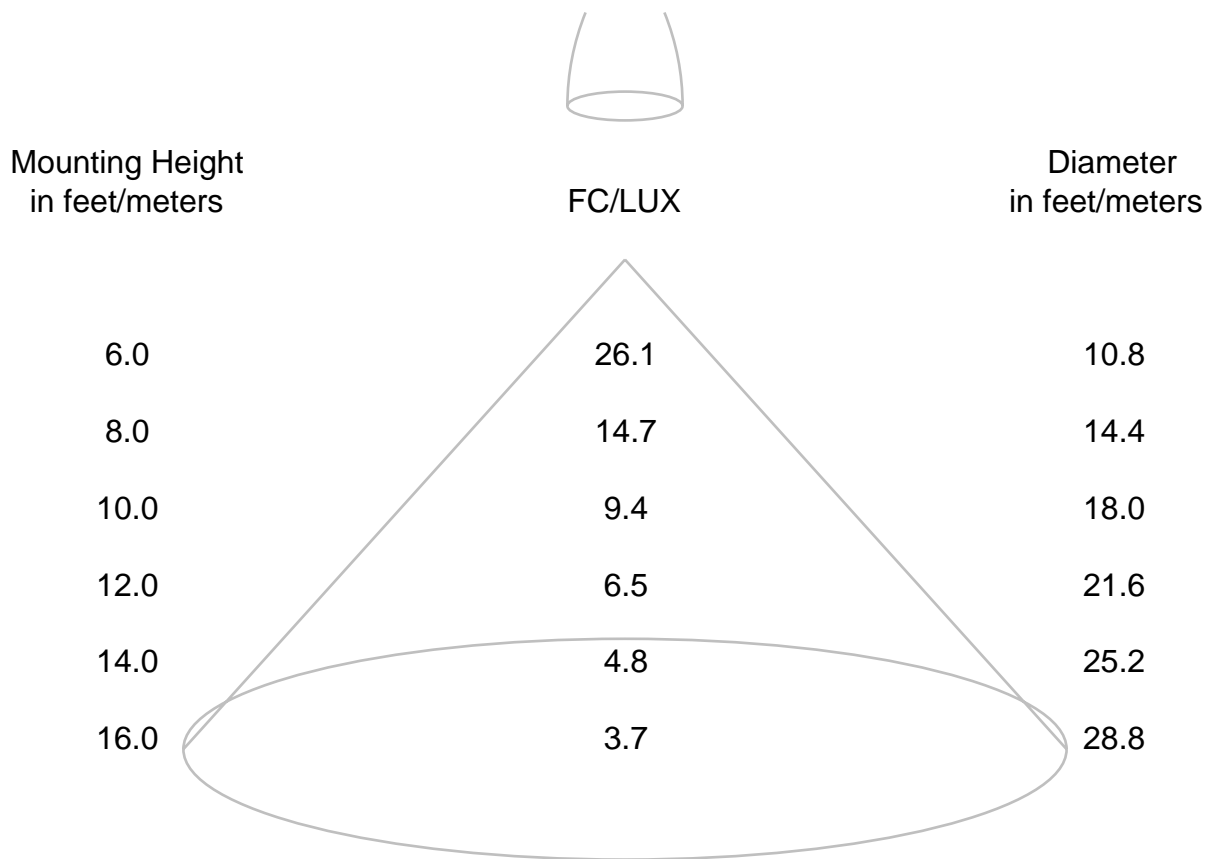
ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

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## CONE OF LIGHT DIAGRAM

(diameter shown is where fc/lux value is half the fc/lux at nadir)



If distances are feet, results are footcandles.  
 If distances are meters, results are lux.

Note: The candela values used to generate this diagram were obtained by averaging the photometric data into a single plane.