

REPORT NUMBER: ITL93971-GONIOPHOTOMETRY

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ISSUE DATE: 09/21/20

PREPARED FOR: LITELAB CORPORATION

ADDRESS: 251 ELM STREET

BUFFALO, NY 14203

CATALOG NUMBER: X02L2000-9TC-A-9830P

LUMINAIRE: FABRICATED METAL MOUNTING BRACKET/LED DRIVER HOUSING, CAST WHITE PAINTED METAL HOUSING WITH WHITE PAINTED FINNED METAL HEAT SINK, ONE CIRCUIT BOARD WITH ONE LED, MOLDED WHITE PLASTIC LED SURROUND, FABRICATED DIFFUSE METAL REFLECTOR MOUNTING RING, MOLDED MULTI-FACETED PLASTIC REFLECTOR WITH SPECULAR FINISH, FROSTED PLASTIC LENS IN MOLDED BLACK PLASTIC FRAME, FORMED SEMI-DIFFUSE METAL REFLECTOR BELOW LENS ON THE 180-DEGREE PLANE. LENS FROSTED SIDE UP.

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

MOUNTING: TRACK

LED DRIVER: LITELAB PROPRIETARY, POTENTIOMETER SET FOR HIGHEST OUTPUT SETTING.

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

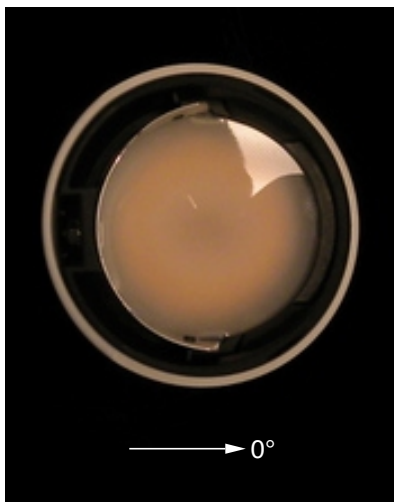
INPUT ELECTRICAL: 120.0 VOLTS, 21.9 WATTS, 0.185 AMPS

POWER FACTOR: 98.6%, VOLTAGE THD: 0.2, CURRENT THD: 13.3

TEST PROCEDURE: IESNA LM-79-19

TEST DISTANCE = 20.0 FEET

AMBIENT: 25.3



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 R BERGIN

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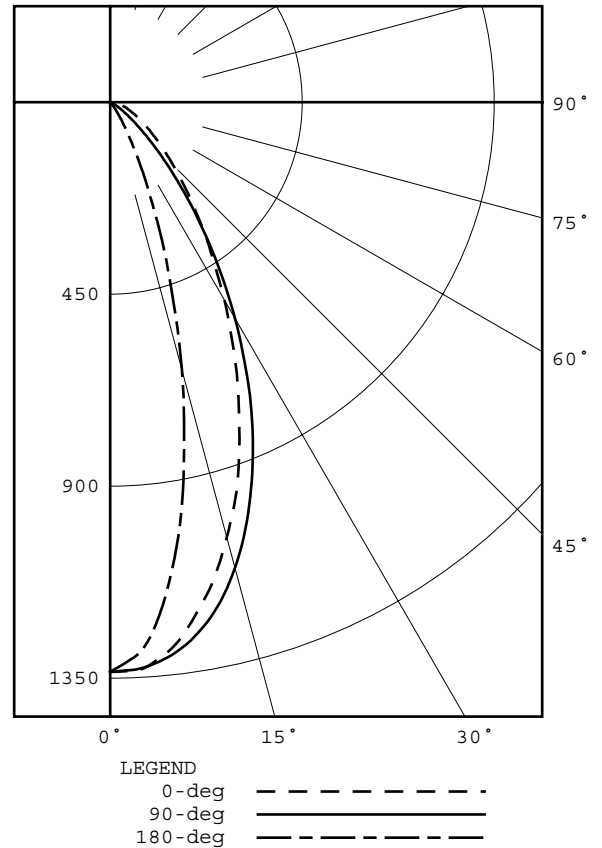
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CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	1335	1335	1335	1335	1335	
5	1309	1322	1316	1264	1229	119
15	1056	1156	1130	811	649	273
25	702	848	780	334	180	275
35	397	489	405	86	26	188
45	209	219	147	9	2	95
55	110	88	39	1	0	42
65	57	38	8	0	0	20
75	29	18	2	0	0	9
85	13	6	0	0	0	4
90	7	3	0	0	0	
95	4	2	0	0	0	1
105	1	1	0	0	0	0
115	0	0	0	0	0	0
125	0	0	0	0	0	0
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	0

ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	667	65.0
0- 40	855	83.3
0- 60	993	96.7
0- 90	1025	99.9
90-120	1	0.1
90-130	1	0.1
90-150	1	0.1
90-180	1	0.1
0-180	1027	100.0

EFFICACY = 46.9 lm/W
CIE TYPE - DIRECT
PLANE : 0-DEG 90-DEG 180-DEG
SPACING CRITERIA : 0.79 0.85 0.49
BEAM ANGLE (50%) : 40.6 X 55.6 DEGREES
FIELD ANGLE (10%) : 78.7 X 91.7 DEGREES





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 • WEBSITE: www.itlboulder.com

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CANDELA DISTRIBUTION

LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	1335	1335	1335	1335	1335	1335	1335	1335	1335
5.0	1309	1315	1322	1326	1316	1295	1264	1239	1229
10.0	1204	1222	1258	1277	1250	1172	1071	996	966
15.0	1056	1090	1156	1193	1130	980	811	693	649
20.0	883	923	1018	1064	965	761	551	417	371
25.0	702	746	848	896	780	548	334	216	180
30.0	535	571	666	703	585	360	180	94	76
35.0	397	420	489	512	405	215	86	36	26
40.0	289	299	336	343	256	117	34	11	8
45.0	209	208	219	210	147	56	9	3	2
50.0	151	146	138	121	78	22	3	1	1
55.0	110	102	88	69	39	7	1	0	0
60.0	79	72	57	41	19	3	0	0	0
65.0	57	51	38	25	8	1	0	0	0
70.0	41	37	26	15	4	0	0	0	0
75.0	29	26	18	9	2	0	0	0	0
80.0	20	17	12	4	1	0	0	0	0
85.0	13	11	6	2	0	0	0	0	0
90.0	7	6	3	1	0	0	0	0	0
95.0	4	3	2	0	0	0	0	0	0
100.0	2	2	1	0	0	0	0	0	0
105.0	1	1	1	0	0	0	0	0	0
110.0	1	1	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	31
5- 10	88
10- 15	127
15- 20	146
20- 25	145
25- 30	130
30- 35	107
35- 40	81
40- 45	57
45- 50	38
50- 55	25
55- 60	17
60- 65	12
65- 70	8
70- 75	6
75- 80	4
80- 85	2
85- 90	1
90- 95	1
95-100	0
100-105	0
105-110	0
110-115	0
115-120	0
120-125	0
125-130	0
130-135	0
135-140	0
140-145	0
145-150	0
150-155	0
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	119
0- 20	393
0- 30	667
0- 40	855
0- 50	951
0- 60	993
0- 70	1012
0- 80	1021
0- 90	1025
0-100	1026
0-110	1027
0-120	1027
0-130	1027
0-140	1027
0-150	1027
0-160	1027
0-170	1027
0-180	1027



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	90	88	86	85
3	101	94	89	84	99	92	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	77	94	86	81	76	84	79	75	82	78	74	80	76	74	72
5	90	81	75	71	89	80	75	70	79	73	70	77	72	69	75	71	68	67
6	86	76	70	65	84	75	69	65	74	69	65	72	68	64	71	67	64	62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58
8	77	67	61	57	76	67	61	57	66	60	56	64	60	56	63	59	56	54
9	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	52	51
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	50	48

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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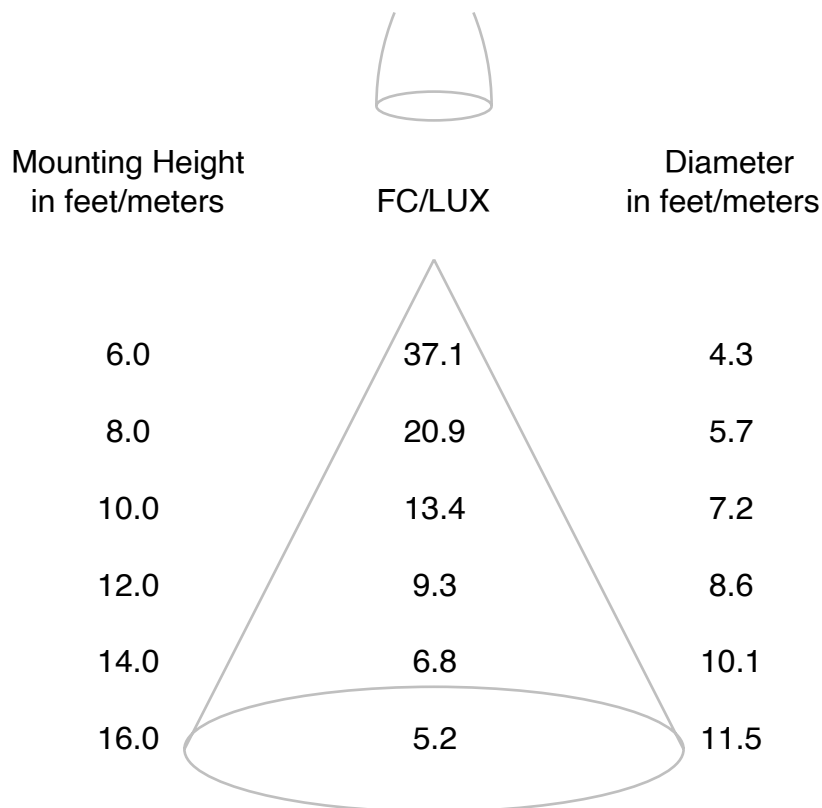
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CONE OF LIGHT DIAGRAM

(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.