



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



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

REPORT NUMBER: ITL91221-GONIOPHOTOMETRY

PAGE: 1 OF 6

ISSUE DATE: 12/22/18

PREPARED FOR: FINELITE, INC.

ADDRESS: 30500 WHIPPLE ROAD

UNION CITY, CA 94587

CATALOG NUMBER: HP-4-C-D-P-4ft-V-835

LUMINAIRE: EXTRUDED WHITE PAINTED METAL HOUSING WITH WHITE PAINTED FLAT METAL END CAPS, FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, 6 WHITE CIRCUIT BOARDS EACH WITH 20 LEDS, EXTRUDED TRANSLUCENT WHITE FROSTED PLASTIC DIFFUSER. DIFFUSER FROSTED BOTH SIDES.

LAMPS: ONE HUNDRED TWENTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 277.0 VOLTS, 29.7 WATTS, 0.113 AMPS

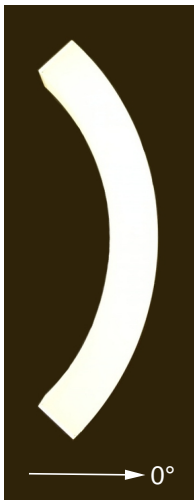
MOUNTING: SUSPENDED

LED DRIVER: OSRAM OTi 30/120-277/1A0 DIM L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (277VAC, 60Hz) TO THE DRIVER.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 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 R BERGIN

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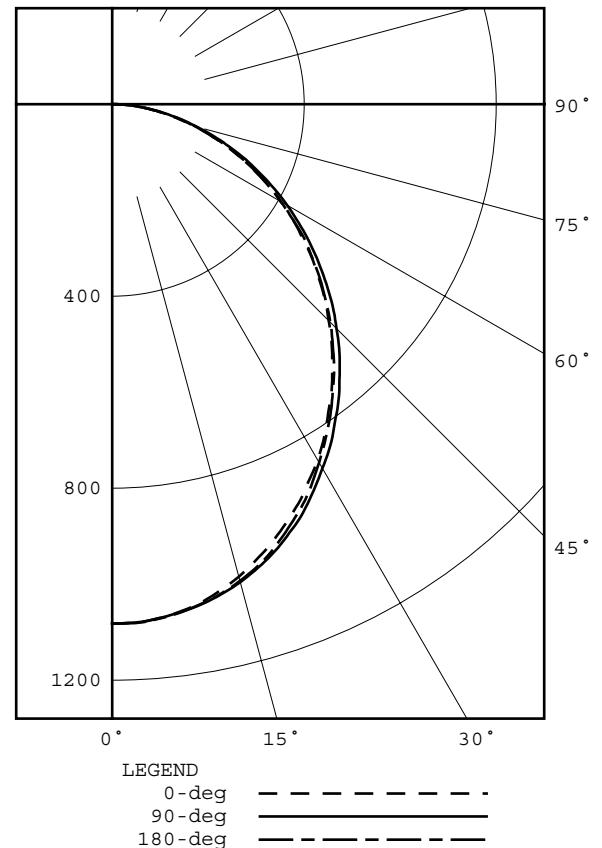
CATALOG NUMBER: HP-4 D-P-3' 1 11/16"-4D90-ARC-V-835

CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	1082	1082	1082	1082	1082	
5	1076	1076	1076	1077	1077	102
15	1019	1025	1031	1028	1028	289
25	918	926	940	928	929	428
35	785	796	809	798	792	500
45	638	648	661	649	643	502
55	483	492	502	494	489	441
65	327	333	339	333	329	331
75	177	181	183	182	179	192
85	51	51	51	52	53	58
90	0	0	0	0	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	819	28.8
0- 40	1319	46.4
0- 60	2261	79.6
0- 90	2842	100.0
90-180	0	0.0
0-180	2842	100.0

EFFICACY (277) = 95.7 lm/W
 EFFICACY (120) = 100.1 lm/W **
 ** THE EFFICACY AT 120 VOLTS IS BASED ON
 THE LUMENS FROM THIS REPORT AND THE
 WATTAGE MEASURED AT 120 VOLTS FROM ITL
 REPORT NUMBER ITL91221-SPHERE.

CIE TYPE - DIRECT
 PLANE : 0-DEG 90-DEG 180-DEG
 SPACING CRITERIA : 1.18 1.21 1.19
 BEAM ANGLE (50%) : 102.9 X 105.1 DEGREES
 FIELD ANGLE (10%) : 160.4 X 160.8 DEGREES





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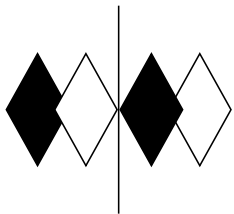
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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	1082	1082	1082	1082	1082	1082	1082	1082	1082
2.5	1081	1081	1081	1081	1081	1081	1081	1081	1082
5.0	1076	1076	1076	1076	1076	1077	1077	1077	1077
7.5	1067	1068	1068	1068	1068	1069	1069	1069	1069
10.0	1055	1055	1057	1058	1059	1059	1059	1058	1058
12.5	1038	1039	1042	1044	1046	1048	1046	1046	1045
15.0	1019	1021	1025	1026	1031	1031	1028	1026	1028
17.5	996	999	1003	1008	1012	1012	1008	1005	1009
20.0	972	975	980	986	991	989	984	981	985
22.5	945	948	954	960	966	964	956	956	957
25.0	918	920	926	934	940	935	928	925	929
27.5	886	888	896	904	908	905	898	895	897
30.0	856	857	863	874	876	874	867	862	862
32.5	822	824	832	839	845	842	833	829	827
35.0	785	789	796	806	809	807	798	796	792
37.5	751	753	762	770	775	772	762	757	755
40.0	713	717	723	731	737	735	728	722	719
42.5	677	680	688	694	701	698	688	683	680
45.0	638	642	648	655	661	659	649	647	643
47.5	601	604	611	617	623	620	611	604	603
50.0	561	564	570	577	582	580	572	566	565
52.5	524	526	532	539	542	539	532	525	525
55.0	483	486	492	497	502	499	494	487	489
57.5	446	448	454	459	461	459	453	446	445
60.0	405	407	413	417	421	419	414	408	407
62.5	368	370	375	379	380	379	373	367	366
65.0	327	329	333	337	339	339	333	329	329
67.5	290	292	295	299	301	299	294	289	288
70.0	250	252	255	258	260	260	255	253	252
72.5	215	215	219	222	222	220	217	214	213
75.0	177	179	181	183	183	183	182	178	179
77.5	144	144	146	147	149	147	145	143	143
80.0	110	111	111	113	113	113	112	111	111
82.5	80	80	81	81	82	81	81	80	80
85.0	51	51	51	52	51	52	52	52	53
87.5	26	26	26	25	25	26	26	27	27
90.0	0	0	0	0	0	0	0	0	0



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	26
5- 10	76
10- 15	124
15- 20	166
20- 25	200
25- 30	227
30- 35	245
35- 40	254
40- 45	255
45- 50	247
50- 55	231
55- 60	209
60- 65	181
65- 70	149
70- 75	114
75- 80	78
80- 85	44
85- 90	14

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	102
0- 20	391
0- 30	819
0- 40	1319
0- 50	1820
0- 60	2261
0- 70	2591
0- 80	2783
0- 90	2842



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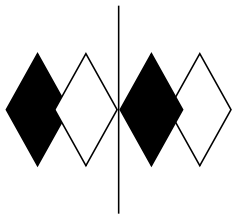
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	54	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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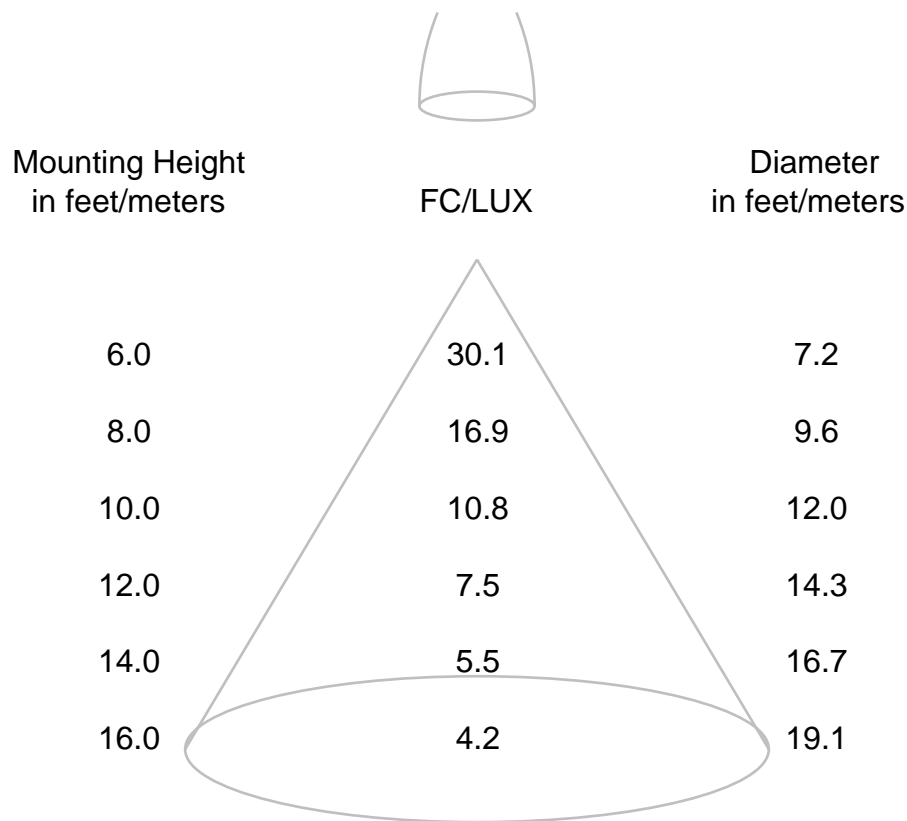
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CONE OF LIGHT DIAGRAM

(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.