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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL62989

DATE: 08/21/09

PREPARED FOR: GALLIUM LIGHTING LLC

CATALOG NUMBER: GS6H-UNV-350-16NS3W183-51-1920, GS6T-16SS1

LUMINAIRE: FABRICATED METAL HOUSING, EXTRUDED FINNED METAL HEAT SINK, ONE TAN CIRCUIT BOARD WITH 16 LEDS, FABRICATED SEMI-SPECULAR METAL 16-CELL LOUVER, OPEN BOTTOM.

LAMP: SIXTEEN WHITE MULTI-CHIP LIGHT EMITTING DIODES (LEDS), NICHIA NS3W183 (P/N NS3W183C1B12L), VERTICAL BASE-UP POSITION.

MOUNTING: RECESSED

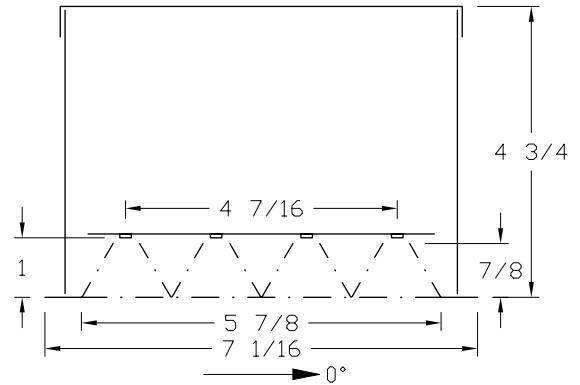
LED DRIVER: HIGH PERFECTION TECH LP1025-36-C0700 (350 mA CONSTANT CURRENT DRIVER)

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

TOTAL INPUT WATTS = 21.0 AT 120.0 VOLTS

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 33.25 FEET



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	1239	1239	1239	1239	1239	114
5	1212	1210	1211	1211	1212	301
15	1091	1078	1065	1066	1078	386
25	854	843	840	837	843	283
35	372	527	524	523	333	50
45	17	19	209	20	18	4
55	5	5	5	5	5	2
65	2	2	2	2	2	1
75	1	1	1	1	1	0
85	0	0	0	0	0	0
90	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	802	70.2
0- 40	1085	95.0
0- 60	1139	99.8
0- 90	1142	100.0
90-180	0	0.0
0-180	1142	100.0

EFFICACY = 54.4 Lm/W

CIE TYPE - DIRECT

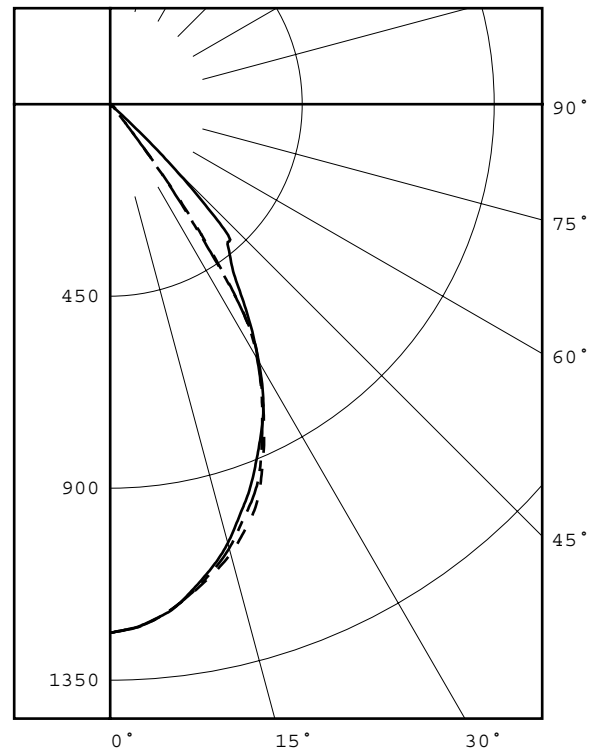
PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.0 0.9

LUMINOUS LENGTH : 5.875 5.875

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	1080.	13273.	1143.
55	391.	391.	391.
65	213.	213.	213.
75	174.	174.	174.
85	0.	0.	0.



LEGEND:

0-deg: - - - - -
45-deg: = = = = =
90-deg: - - - - -

Checked B. HYRE

Approved R. BEATTIE



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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0.0	1239	1239	1239	1239	1239
2.5	1229	1228	1229	1227	1230
5.0	1212	1210	1211	1211	1212
7.5	1186	1186	1187	1184	1186
10.0	1156	1155	1149	1153	1154
12.5	1125	1118	1110	1109	1118
15.0	1091	1078	1065	1066	1078
17.5	1048	1036	1010	1019	1027
20.0	1000	983	958	965	980
22.5	930	923	898	911	919
25.0	854	843	840	837	843
27.5	773	764	777	765	769
30.0	695	677	696	683	689
32.5	585	611	611	615	582
35.0	372	527	524	523	333
37.5	135	341	465	320	127
40.0	28	122	428	116	31
42.5	21	25	388	30	23
45.0	17	19	209	20	18
47.5	11	14	30	13	14
50.0	8	10	8	11	8
52.5	6	6	6	7	6
55.0	5	5	5	5	5
57.5	3	4	3	3	3
60.0	3	3	3	3	3
62.5	2	2	2	2	2
65.0	2	2	2	2	2
67.5	2	2	2	2	2
70.0	2	2	2	2	2
72.5	1	1	1	1	1
75.0	1	1	1	1	1
77.5	0	0	0	0	0
80.0	0	0	0	0	0
82.5	0	0	0	0	0
85.0	0	0	0	0	0
87.5	0	0	0	0	0
90.0	0	0	0	0	0

ZONAL	LUMEN	SUMMARY
0-	5	29.
5-	10	85.
10-	15	132.
15-	20	169.
20-	25	192.
25-	30	195.
30-	35	178.
35-	40	105.
40-	45	43.
45-	50	7.
50-	55	3.
55-	60	2.
60-	65	1.
65-	70	1.
70-	75	1.
75-	80	0.
80-	85	0.
85-	90	0.



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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	111	110	108	111	109	106	104	105	103	101	101	99	98	97	96	95	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	90	89	87
3	102	96	91	87	100	95	90	87	92	88	85	90	86	84	87	85	83	81
4	97	90	84	80	95	89	84	80	86	82	79	84	81	78	83	79	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70
6	88	79	73	69	86	78	72	68	76	72	68	75	71	67	74	70	67	65
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61
8	79	70	64	60	78	69	63	59	68	63	59	67	62	59	66	62	59	57
9	75	66	60	56	74	65	59	56	64	59	55	63	59	55	62	58	55	54
10	72	62	56	52	71	62	56	52	61	56	52	60	55	52	59	55	52	50

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 LUMINAIRE SAMPLE.