



itl boulder

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

DATE: 09/27/10

REPORT NUMBER: ITL66178

PREPARED FOR: THE LIGHTING QUOTIENT

CATALOG NUMBER: S301-R06G-10X60 FILM

LUMINAIRE: EXTRUDED SEMI-SPECULAR METAL LED DRIVER HOUSING. EXTRUDED SEMI-SPECULAR METAL LED HOUSING, EXTRUDED SEMI-SPECULAR METAL CIRCUIT BOARD MOUNTING PLATE, SIX CIRCUIT BOARDS EACH WITH 6 LEDS ONE CLEAR PLASTIC OPTIC OVER EACH SET OF 3 LEDS, TWO EXTRUDED CLEAR ACRYLIC LENSES EACH WITH HOLOGRAPHIC INTERIOR PLASTIC OVERLAY.

LAMPS: THIRTY-SIX WHITE LIGHT EMITTING DIODES (LEDs) EACH WITH CLEAR HEMISPHERICAL INTEGRAL PLASTIC LENS, TILTED 35-DEGREES ABOVE AIMED AT THE HORIZON.

MOUNTING: SURFACE

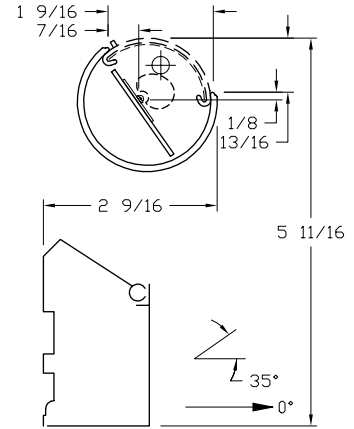
LED DRIVER: ROAL RSLD035-16

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

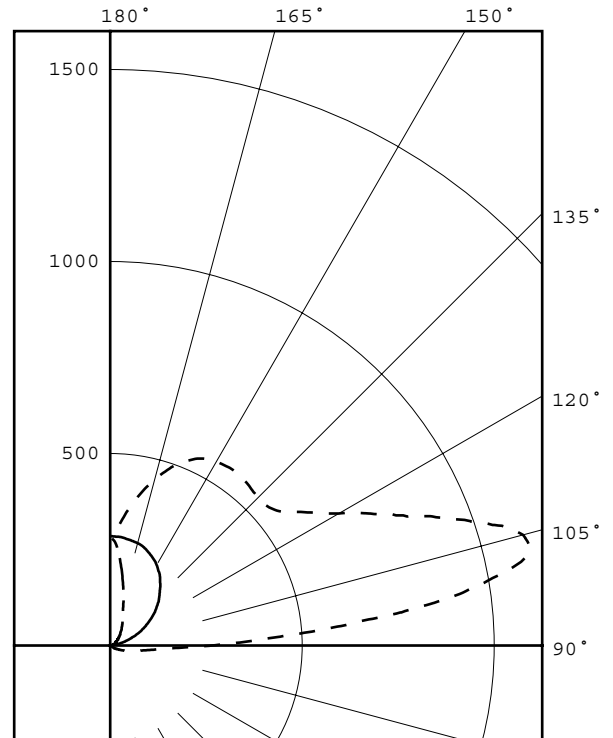
TOTAL INPUT WATTS = 42.1 AT 120.0 VOLTS

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 33.25 FEET



CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	0	0	0	0	0	0
5	0	0	0	0	0	0
15	0	0	0	0	0	0
25	0	0	0	0	0	0
35	0	0	0	0	0	0
45	4	0	0	0	0	1
55	11	4	0	0	0	2
65	25	16	0	0	0	7
75	56	43	0	0	0	19
85	118	131	0	0	0	72
90	254	357	0	0	0	
95	617	762	2	1	0	292
105	1113	811	38	7	5	371
115	809	551	87	19	13	283
125	606	519	136	34	22	234
135	545	537	181	50	33	208
145	558	531	225	74	52	177
155	537	479	256	110	77	133
165	448	396	276	172	135	80
175	324	316	284	257	243	27
180	285	285	285	285	285	



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

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	0	0.0
0- 40	0	0.0
0- 60	3	0.1
0- 90	101	5.3
90-120	946	49.7
90-130	1180	61.9
90-150	1565	82.1
90-180	1805	94.7
0-180	1906	100.0

EFFICACY = 45.3 Lm/W
CIE TYPE - INDIRECT

Checked *N.WHITE*
Approved *R.BEATTIE*



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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	0	0	0	0	0	0	0	0	0
2.5	0	0	0	0	0	0	0	0	0
5.0	0	0	0	0	0	0	0	0	0
7.5	0	0	0	0	0	0	0	0	0
10.0	0	0	0	0	0	0	0	0	0
12.5	0	0	0	0	0	0	0	0	0
15.0	0	0	0	0	0	0	0	0	0
17.5	0	0	0	0	0	0	0	0	0
20.0	0	0	0	0	0	0	0	0	0
22.5	0	0	0	0	0	0	0	0	0
25.0	0	0	0	0	0	0	0	0	0
27.5	0	0	0	0	0	0	0	0	0
30.0	0	0	0	0	0	0	0	0	0
32.5	0	0	0	0	0	0	0	0	0
35.0	0	0	0	0	0	0	0	0	0
37.5	1	0	0	0	0	0	0	0	0
40.0	1	1	0	0	0	0	0	0	0
42.5	3	1	0	0	0	0	0	0	0
45.0	4	3	0	0	0	0	0	0	0
47.5	6	4	1	0	0	0	0	0	0
50.0	7	5	1	0	0	0	0	0	0
52.5	9	7	3	0	0	0	0	0	0
55.0	11	9	4	0	0	0	0	0	0
57.5	14	11	6	0	0	0	0	0	0
60.0	17	14	9	1	0	0	0	0	0
62.5	20	17	12	1	0	0	0	0	0
65.0	25	22	16	2	0	0	0	0	0
67.5	31	28	21	3	0	0	0	0	0
70.0	39	35	28	6	0	0	0	0	0
72.5	47	44	34	10	0	0	0	0	0
75.0	56	52	43	16	0	0	0	0	0
77.5	67	62	53	26	0	0	0	0	0
80.0	78	74	66	47	0	0	0	0	0
82.5	94	88	89	80	0	0	0	0	0
85.0	118	115	131	153	0	0	0	0	0
87.5	162	162	209	248	0	0	0	0	0
90.0	254	231	357	331	0	0	0	0	0
91.0	318	345	450	410	0	0	0	0	0
92.0	378	411	529	431	0	0	0	0	0
93.0	443	493	608	444	0	0	0	0	0
94.0	530	602	697	449	0	0	0	0	0
95.0	617	687	762	443	2	0	1	0	0
95.5	647	734	798	439	3	1	2	1	0
96.0	711	781	845	434	5	2	2	2	0
96.5	763	825	867	429	6	2	2	2	0
97.0	799	859	891	422	7	3	2	2	0
97.5	851	899	910	414	9	3	2	2	0
98.0	890	935	926	408	11	3	2	2	2
98.5	928	964	935	400	12	4	2	2	2
99.0	951	991	942	394	14	5	3	2	2
99.5	987	1019	943	387	16	5	3	2	2
100.0	1011	1050	943	379	16	6	3	3	2
100.5	1044	1068	938	375	19	7	4	3	3
101.0	1069	1081	931	368	21	8	4	3	3
101.5	1092	1091	914	365	24	8	5	3	3
102.0	1106	1097	903	362	26	9	5	3	3
102.5	1114	1098	888	359	28	9	5	4	3
103.0	1119	1097	876	357	30	11	6	4	3
103.5	1122	1093	858	356	31	12	6	5	3
104.0	1120	1087	842	356	34	13	6	5	3
104.5	1117	1080	827	355	36	13	7	5	5
105.0	1113	1069	811	355	38	14	7	5	5
105.5	1103	1054	792	355	40	16	8	5	5
106.0	1092	1031	777	355	42	16	8	6	5
106.5	1078	1017	762	356	44	17	8	6	5



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CANDELA DISTRIBUTION
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	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
107.0	1067	1002	747	356	46	18	9	6	5
107.5	1044	984	722	358	50	19	9	6	6
108.0	1030	968	706	360	52	20	10	6	6
108.5	1012	953	692	360	54	21	11	7	6
109.0	993	934	679	364	56	23	11	7	6
109.5	979	919	664	364	59	24	12	8	6
110.0	961	902	652	366	60	24	12	8	8
110.5	942	884	640	368	63	27	13	8	6
111.0	928	870	625	371	66	27	13	9	8
111.5	912	855	617	375	70	30	15	10	9
112.0	899	833	604	378	72	31	16	11	9
112.5	881	819	593	380	74	33	16	11	9
113.0	865	804	584	382	76	34	16	13	11
113.5	843	791	573	383	79	34	17	12	11
114.0	834	779	564	385	82	36	17	13	11
114.5	818	765	558	386	85	38	19	13	11
115.0	809	752	551	389	87	38	19	13	13
116.0	779	733	537	392	91	42	20	14	13
117.0	757	708	526	395	96	44	21	15	13
118.0	735	682	519	399	101	47	22	16	14
119.0	715	662	514	403	106	50	24	16	14
120.0	688	641	511	404	110	52	25	17	16
122.5	642	601	512	410	123	59	28	20	19
125.0	606	567	519	416	136	67	34	24	22
127.5	572	548	526	416	148	74	38	27	24
130.0	553	541	532	416	159	81	42	30	27
132.5	545	541	536	415	171	87	45	33	30
135.0	545	545	537	413	181	93	50	36	33
137.5	548	550	538	410	191	101	55	41	38
140.0	553	551	537	406	203	108	61	45	41
142.5	555	553	536	401	213	117	67	49	45
145.0	558	553	531	397	225	126	74	56	52
147.5	556	550	523	391	233	136	82	61	56
150.0	553	548	510	382	242	147	91	67	63
152.5	547	540	496	375	250	157	100	75	69
155.0	537	527	479	367	256	169	110	85	77
157.5	520	511	459	361	262	179	122	94	88
160.0	501	487	441	351	268	194	137	107	97
162.5	475	463	417	342	273	204	156	121	114
165.0	448	437	396	336	276	218	172	141	135
167.5	418	406	377	327	278	231	191	166	157
170.0	387	379	354	319	280	242	213	190	183
172.5	356	349	336	309	282	255	234	219	213
175.0	324	324	316	299	284	266	257	244	243
177.5	299	300	298	289	284	277	276	270	271
180.0	285	285	285	285	285	285	285	285	285



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0.
5- 10	0.
10- 15	0.
15- 20	0.
20- 25	0.
25- 30	0.
30- 35	0.
35- 40	0.
40- 45	0.
45- 50	0.
50- 55	1.
55- 60	1.
60- 65	3.
65- 70	4.
70- 75	7.
75- 80	12.
80- 85	22.
85- 90	50.
90- 95	114.
95-100	178.
100-105	196.
105-110	175.
110-115	150.
115-120	133.
120-125	121.
125-130	113.
130-135	107.
135-140	101.
140-145	93.
145-150	84.
150-155	73.
155-160	60.
160-165	47.
165-170	34.
170-175	20.
175-180	7.

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	0.
0- 20	0.
0- 30	0.
0- 40	0.
0- 50	1.
0- 60	3.
0- 70	10.
0- 80	29.
0- 90	101.
0-100	393.
0-110	764.
0-120	1047.
0-130	1281.
0-140	1488.
0-150	1666.
0-160	1799.
0-170	1879.
0-180	1906.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
0	96	96	96	96	83	83	83	83	58	58	58	36	36	36	15	15	15	5
1	86	82	77	74	74	70	67	64	49	47	44	29	28	27	11	10	10	1
2	78	71	65	59	67	61	56	51	42	39	36	25	23	22	9	8	8	1
3	71	62	55	49	61	53	47	43	37	33	30	22	20	18	8	7	6	0
4	65	54	47	41	55	47	41	36	33	29	25	19	17	15	7	6	5	0
5	59	48	40	35	51	42	35	30	29	25	21	17	15	13	6	5	4	0
6	54	43	35	30	46	37	31	26	26	22	18	15	13	11	6	5	4	0
7	50	38	31	26	43	33	27	22	23	19	16	14	11	10	5	4	3	0
8	46	35	27	22	40	30	24	19	21	17	14	13	10	8	5	4	3	0
9	43	31	24	20	37	27	21	17	19	15	12	11	9	7	4	3	3	0
10	40	28	22	17	34	25	19	15	17	13	11	10	8	6	4	3	2	0

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.

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.