

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

REPORT NUMBER: ITL65463

DATE: 08/17/10

PREPARED FOR: NUMBER EIGHT LIGHTING COMPANY

CATALOG NUMBER: 801/A-QT-120 WITH FS-P-WH TRIM

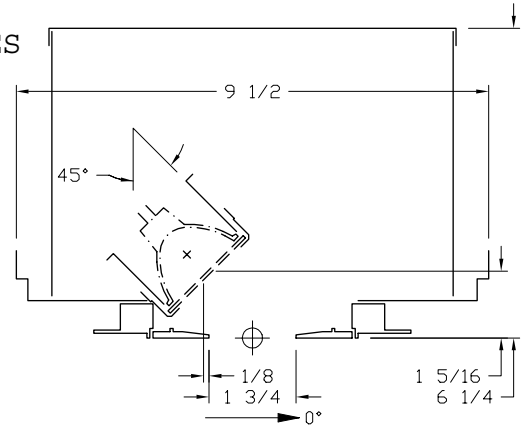
LUMINAIRE: FABRICATED METAL HOUSING WITH BLACK PAINTED GENERAL INTERIOR FINISH, FABRICATED BLACK PAINTED METAL LAMP MOUNTING BRACKET, CLEAR FLAT GLASS LENS IN MACHINED BLACK FINISHED METAL LAMP RETAINING RING, CAST WHITE PAINTED METAL INNER TRIM RING WITH BLACK PAINTED INTERIOR, INNER TRIM RING ATTACHED TO CAST WHITE PAINTED PERFORATED METAL OUTER TRIM RING WITH FOUR MAGNETS.

LAMP: ONE 50-WATT MR-16 HALOGEN INCANDESCENT, GE EXN Q50MR16/C/FL40, TILTED 45-DEGREES FROM VERTICAL BASE-UP POSITION.

MOUNTING: RECESSED

TEST DISTANCE = 25.25 FEET

REPORT IS BASED ON 800 LUMENS PER LAMP.



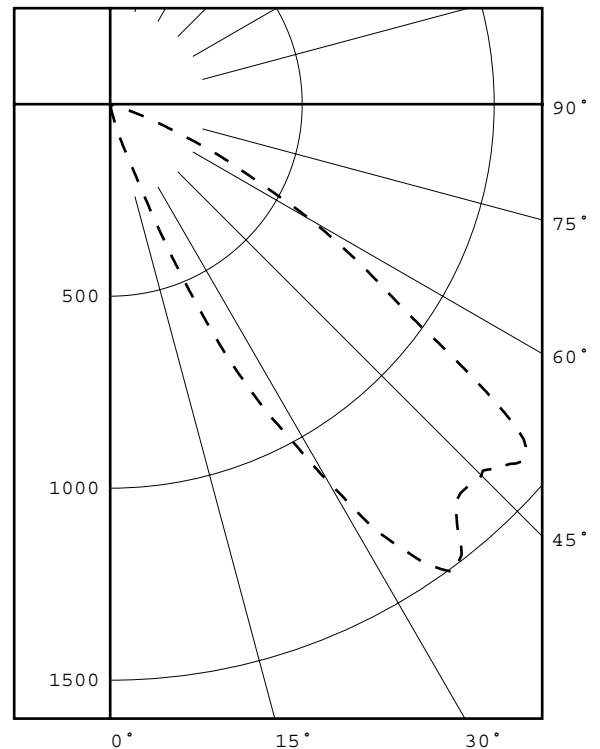
CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	8	8	8	8	8	
5	9	11	10	6	6	1
15	68	19	8	2	0	5
25	736	63	6	0	0	51
35	1471	101	4	0	0	137
45	1367	42	0	0	0	168
55	937	13	0	0	0	118
65	302	0	0	0	0	33
75	0	0	0	0	0	2
85	0	0	0	0	0	0
90	0	0	0	0	0	

ZONAL LUMEN SUMMARY				
ZONE	LUMENS	%LAMP	%FIXT	
0- 30	57	7.1	11.1	
0- 40	194	24.3	37.8	
0- 60	480	59.9	93.3	
0- 90	514	64.2	100.0	
90-180	0	0.0	0.0	
0-180	514	64.2	100.0	

TOTAL LUMINAIRE EFFICIENCY = 64.2 %

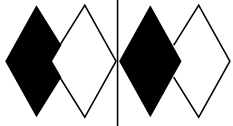
CIE TYPE - DIRECT
PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 1.750 1.750

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG	
45	978469.	0.	0.	
55	826822.	0.	0.	
65	361678.	0.	0.	
75	0.	0.	0.	
85	0.	0.	0.	



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

Checked*R. HUMPHREYS*
Approved*R. BEATTIE*.....



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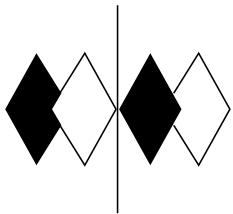
DATE: 08/17/10

PREPARED FOR: NUMBER EIGHT LIGHTING COMPANY

CANDELA DISTRIBUTION

LATERAL ANGLE

	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
0.0	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8
5.0	9	9	9	10	10	9	9	10	10	10	10	10	10	10
7.5	12	12	12	12	12	12	12	12	12	12	13	13	13	13
10.0	15	15	15	15	15	15	15	15	16	16	16	16	17	17
12.5	27	27	27	26	26	25	25	24	24	23	23	23	22	22
15.0	68	68	67	66	64	62	60	57	54	51	49	46	45	44
17.5	122	122	121	119	117	114	111	107	103	100	97	94	92	91
20.0	224	223	222	219	214	208	203	195	188	183	180	177	177	176
22.5	473	475	472	464	461	451	440	428	416	406	396	388	379	368
25.0	736	739	739	734	724	718	710	702	688	676	658	638	618	597
26.0	818	823	827	819	810	805	795	782	765	750	734	715	699	685
27.0	903	905	904	897	892	881	867	855	835	817	800	790	777	764
28.0	966	967	965	959	949	939	930	918	899	888	876	864	854	844
29.0	1048	1049	1042	1025	1015	1007	996	989	970	960	949	935	924	913
30.0	1137	1136	1126	1112	1095	1088	1080	1068	1056	1041	1026	1010	999	984
30.5	1175	1176	1170	1155	1144	1133	1123	1108	1093	1080	1066	1049	1033	1019
31.0	1222	1223	1219	1205	1195	1181	1165	1148	1133	1116	1103	1084	1070	1056
31.5	1269	1271	1267	1257	1243	1232	1216	1190	1169	1152	1134	1119	1103	1089
32.0	1311	1315	1311	1306	1295	1280	1266	1242	1214	1195	1172	1151	1134	1115
32.5	1339	1346	1347	1344	1337	1323	1307	1284	1256	1234	1208	1183	1161	1141
33.0	1369	1373	1377	1374	1369	1359	1344	1319	1292	1268	1238	1212	1191	1169
33.5	1396	1405	1407	1404	1401	1388	1378	1357	1328	1300	1269	1240	1212	1185
34.0	1426	1434	1439	1435	1430	1419	1406	1387	1358	1328	1298	1263	1234	1202
34.5	1454	1458	1460	1458	1454	1441	1428	1410	1382	1354	1322	1287	1251	1217
35.0	1471	1480	1483	1480	1474	1461	1448	1431	1403	1377	1341	1306	1268	1227
35.5	1488	1496	1497	1496	1490	1477	1463	1447	1419	1396	1363	1325	1286	1239
36.0	1503	1511	1514	1509	1502	1491	1476	1458	1431	1411	1379	1337	1297	1250
36.5	1513	1519	1521	1517	1513	1497	1485	1467	1441	1416	1385	1343	1306	1261
37.0	1508	1517	1521	1517	1509	1496	1483	1466	1444	1423	1393	1352	1316	1275
37.5	1494	1503	1508	1507	1500	1489	1479	1465	1445	1423	1395	1356	1322	1287
38.0	1487	1494	1493	1491	1489	1480	1473	1462	1440	1420	1394	1361	1327	1295
38.5	1467	1475	1478	1474	1476	1477	1470	1463	1441	1422	1399	1365	1334	1306
39.0	1442	1450	1453	1454	1453	1452	1457	1454	1439	1417	1397	1369	1343	1316
39.5	1420	1428	1432	1430	1430	1431	1440	1444	1435	1420	1400	1372	1350	1327
40.0	1403	1410	1413	1417	1418	1421	1431	1435	1429	1419	1395	1373	1353	1336
40.5	1385	1395	1396	1398	1401	1408	1418	1428	1429	1422	1405	1380	1358	1343
41.0	1371	1382	1383	1385	1389	1397	1405	1416	1422	1420	1407	1385	1363	1346
41.5	1368	1378	1376	1379	1382	1392	1404	1410	1420	1421	1410	1386	1363	1348
42.0	1363	1374	1374	1377	1381	1393	1404	1410	1421	1422	1412	1389	1366	1349
42.5	1363	1372	1372	1375	1381	1388	1403	1410	1420	1423	1418	1395	1367	1349
43.0	1363	1370	1375	1374	1382	1391	1404	1410	1419	1424	1419	1397	1371	1354
43.5	1363	1372	1377	1376	1385	1394	1406	1415	1423	1429	1420	1401	1373	1353
44.0	1367	1374	1383	1386	1393	1398	1409	1415	1420	1428	1421	1402	1376	1355
44.5	1370	1374	1387	1388	1398	1404	1410	1413	1419	1425	1419	1404	1379	1356
45.0	1367	1376	1387	1392	1402	1405	1408	1412	1418	1423	1416	1402	1379	1353
45.5	1361	1372	1381	1388	1395	1396	1400	1401	1407	1414	1409	1393	1371	1344
46.0	1370	1379	1389	1393	1398	1396	1394	1393	1396	1404	1396	1384	1363	1335
46.5	1379	1386	1393	1398	1399	1393	1393	1385	1387	1393	1388	1374	1351	1327
47.0	1378	1383	1390	1393	1390	1385	1384	1375	1383	1388	1379	1363	1335	1313
47.5	1393	1396	1400	1400	1393	1385	1375	1366	1369	1371	1361	1347	1320	1301
48.0	1400	1405	1406	1400	1394	1386	1376	1363	1360	1359	1343	1323	1298	1282
48.5	1412	1417	1418	1411	1400	1387	1369	1356	1349	1343	1325	1306	1279	1262
49.0	1418	1421	1422	1413	1399	1383	1364	1346	1330	1318	1300	1279	1254	1241
49.5	1418	1421	1418	1408	1394	1377	1357	1334	1309	1292	1271	1245	1223	1212
50.0	1413	1416	1417	1405	1385	1361	1336	1311	1280	1256	1232	1217	1200	1187
51.0	1385	1390	1390	1376	1350	1328	1300	1267	1232	1195	1166	1152	1136	1122
52.0	1300	1299	1301	1287	1269	1249	1226	1196	1155	1125	1100	1081	1068	1046
53.0	1183	1185	1181	1175	1166	1157	1141	1119	1089	1062	1035	1010	989	972
54.0	1053	1051	1050	1045	1048	1045	1033	1011	985	958	924	897	887	896
55.0	937	938	944	950	957	959	952	936	908	877	844	816	818	822
57.5	768	767	776	782	791	788	782	768	740	708	675	644	631	624
60.0	605	607	606	606	604	599	590	573	550	529	502	476	464	455
62.5	424	426	429	428	428	426	414	405	394	374	366	343	323	306
65.0	302	303	306	311	308	296	277	265	255	246	233	214	201	188



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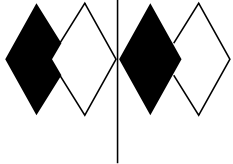
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CANDELA DISTRIBUTION

LATERAL ANGLE

	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
67.5	173	174	173	175	176	177	166	155	145	140	136	126	115	105
70.0	96	96	96	98	96	91	82	75	68	67	66	64	61	57
72.5	24	22	21	21	20	20	20	21	20	18	16	13	11	10
75.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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LATERAL ANGLE

	14.0	15.0	20.0	22.5	25.0	30.0	35.0	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2.5	8	8	8	8	8	8	9	9	10	9	9	8	8	7
5.0	10	10	10	11	11	11	12	11	11	10	8	6	6	6
7.5	13	13	14	14	14	14	14	12	9	8	7	6	5	6
10.0	17	17	18	18	17	16	15	12	10	8	7	5	4	3
12.5	22	21	20	19	18	17	16	16	12	9	5	4	2	0
15.0	43	42	41	40	38	30	22	19	11	8	4	2	0	0
17.5	90	90	88	83	75	52	34	21	11	6	3	1	0	0
20.0	176	174	157	138	116	81	60	28	13	6	2	0	0	0
22.5	356	342	265	228	198	155	110	41	12	6	1	0	0	0
25.0	578	555	445	375	316	234	159	63	11	6	0	0	0	0
26.0	670	654	532	447	375	258	177	77	12	6	0	0	0	0
27.0	754	744	621	529	441	286	192	85	12	6	0	0	0	0
28.0	832	823	702	603	507	318	211	95	12	6	0	0	0	0
29.0	908	894	765	677	570	359	235	107	12	6	0	0	0	0
30.0	969	956	822	742	641	406	255	113	12	5	0	0	0	0
30.5	1002	986	853	770	666	429	261	112	12	5	0	0	0	0
31.0	1038	1013	879	799	691	452	270	112	12	5	0	0	0	0
31.5	1068	1042	908	823	713	474	278	113	12	5	0	0	0	0
32.0	1094	1067	935	846	738	496	284	115	11	5	0	0	0	0
32.5	1122	1092	958	867	762	515	291	115	11	4	0	0	0	0
33.0	1148	1116	979	887	783	534	297	115	11	4	0	0	0	0
33.5	1165	1132	997	907	802	550	305	112	11	4	0	0	0	0
34.0	1177	1144	1014	923	824	564	313	110	11	4	0	0	0	0
34.5	1185	1159	1033	941	838	580	318	106	11	4	0	0	0	0
35.0	1191	1164	1050	960	859	594	328	101	11	4	0	0	0	0
35.5	1201	1170	1066	983	877	604	334	94	10	4	0	0	0	0
36.0	1210	1179	1082	999	890	615	341	87	10	4	0	0	0	0
36.5	1226	1189	1093	1015	907	627	344	80	10	4	0	0	0	0
37.0	1243	1204	1102	1022	913	633	348	73	10	3	0	0	0	0
37.5	1256	1217	1114	1034	916	641	349	69	9	3	0	0	0	0
38.0	1269	1235	1119	1042	920	642	350	67	9	3	0	0	0	0
38.5	1285	1251	1131	1050	927	648	344	68	8	3	0	0	0	0
39.0	1296	1261	1132	1056	929	647	340	67	7	2	0	0	0	0
39.5	1307	1274	1132	1056	932	647	339	66	7	2	0	0	0	0
40.0	1317	1285	1133	1058	933	645	334	64	6	2	0	0	0	0
40.5	1324	1296	1134	1056	931	644	332	62	6	2	0	0	0	0
41.0	1328	1302	1135	1057	927	638	324	60	6	1	0	0	0	0
41.5	1333	1305	1132	1055	922	631	313	56	6	1	0	0	0	0
42.0	1332	1305	1133	1053	919	622	301	53	6	1	0	0	0	0
42.5	1331	1308	1133	1049	917	612	291	50	6	0	0	0	0	0
43.0	1332	1305	1134	1047	910	596	280	46	6	0	0	0	0	0
43.5	1337	1313	1131	1042	905	587	272	44	6	0	0	0	0	0
44.0	1338	1313	1132	1036	902	574	266	44	6	0	0	0	0	0
44.5	1338	1312	1128	1034	893	557	261	43	5	0	0	0	0	0
45.0	1337	1310	1123	1025	883	538	254	42	5	0	0	0	0	0
45.5	1330	1301	1118	1018	873	519	247	42	5	0	0	0	0	0
46.0	1322	1291	1116	1003	865	499	240	41	5	0	0	0	0	0
46.5	1310	1282	1108	996	852	485	232	41	4	0	0	0	0	0
47.0	1297	1270	1100	987	837	468	225	40	4	0	0	0	0	0
47.5	1281	1256	1092	975	820	454	216	38	4	0	0	0	0	0
48.0	1264	1236	1077	961	801	443	207	36	4	0	0	0	0	0
48.5	1244	1214	1067	952	778	429	196	34	3	0	0	0	0	0
49.0	1227	1193	1053	935	754	413	184	32	3	0	0	0	0	0
49.5	1199	1169	1036	915	730	399	177	29	3	0	0	0	0	0
50.0	1167	1136	1018	898	702	386	171	28	2	0	0	0	0	0
51.0	1102	1080	978	849	652	362	161	25	1	0	0	0	0	0
52.0	1033	1028	942	784	609	338	148	22	0	0	0	0	0	0
53.0	973	976	865	702	554	307	135	20	0	0	0	0	0	0
54.0	911	916	809	635	481	270	121	17	0	0	0	0	0	0
55.0	819	810	711	594	449	232	108	13	0	0	0	0	0	0
57.5	618	600	514	421	310	170	72	9	0	0	0	0	0	0
60.0	446	443	324	270	207	120	43	5	0	0	0	0	0	0
62.5	291	278	187	160	134	59	22	3	0	0	0	0	0	0
65.0	169	156	110	86	65	35	12	0	0	0	0	0	0	0



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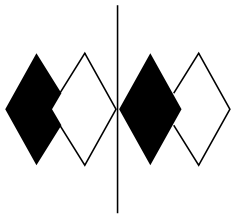
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CANDELA DISTRIBUTION

LATERAL ANGLE

	14.0	15.0	20.0	22.5	25.0	30.0	35.0	45.0	67.5	90.0	112.5	135.0	157.5	180.0
67.5	96	86	62	41	37	18	6	0	0	0	0	0	0	0
70.0	51	42	32	22	16	5	1	0	0	0	0	0	0	0
72.5	9	8	9	2	1	1	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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PREPARED FOR: NUMBER EIGHT LIGHTING COMPANY

5-DEGREE

ZONAL LUMEN SUMMARY

0- 5	0.
5- 10	1.
10- 15	1.
15- 20	4.
20- 25	15.
25- 30	36.
30- 35	60.
35- 40	77.
40- 45	83.
45- 50	84.
50- 55	71.
55- 60	46.
60- 65	24.
65- 70	9.
70- 75	2.
75- 80	0.
80- 85	0.
85- 90	0.

10-DEGREE

ZONAL LUMEN SUMMARY

0- 10	1.
0- 20	6.
0- 30	57.
0- 40	194.
0- 50	362.
0- 60	480.
0- 70	512.
0- 80	514.
0- 90	514.
0-100	514.
0-110	514.
0-120	514.
0-130	514.
0-140	514.
0-150	514.
0-160	514.
0-170	514.
0-180	514.



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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	77	77	77	77	75	75	75	75	72	72	72	68	68	68	66	66	66	64	64
1	71	68	66	64	69	67	65	63	64	62	61	62	60	59	59	58	57	56	56
2	65	60	56	52	63	59	55	52	56	53	50	54	52	49	52	50	48	47	47
3	59	52	47	43	57	51	46	43	49	45	42	47	44	41	46	43	40	39	39
4	53	45	40	36	52	45	39	35	43	38	35	42	38	34	40	37	34	32	32
5	48	40	34	30	47	39	34	29	38	33	29	36	32	29	35	31	28	27	27
6	44	35	29	25	43	34	29	25	33	28	24	32	28	24	31	27	24	23	23
7	40	31	25	21	39	30	25	21	29	24	21	28	24	20	28	23	20	19	19
8	37	27	22	18	36	27	21	18	26	21	17	25	21	17	25	20	17	16	16
9	34	25	19	15	33	24	19	15	23	18	15	23	18	15	22	18	15	14	14
10	31	22	17	13	30	22	16	13	21	16	13	20	16	13	20	16	13	11	11

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.

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.