

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P135674

Luminaire Tested: **LD6A15D010TE ERM6A15835 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135674
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERM6A15835 6LM111H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1462.1 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

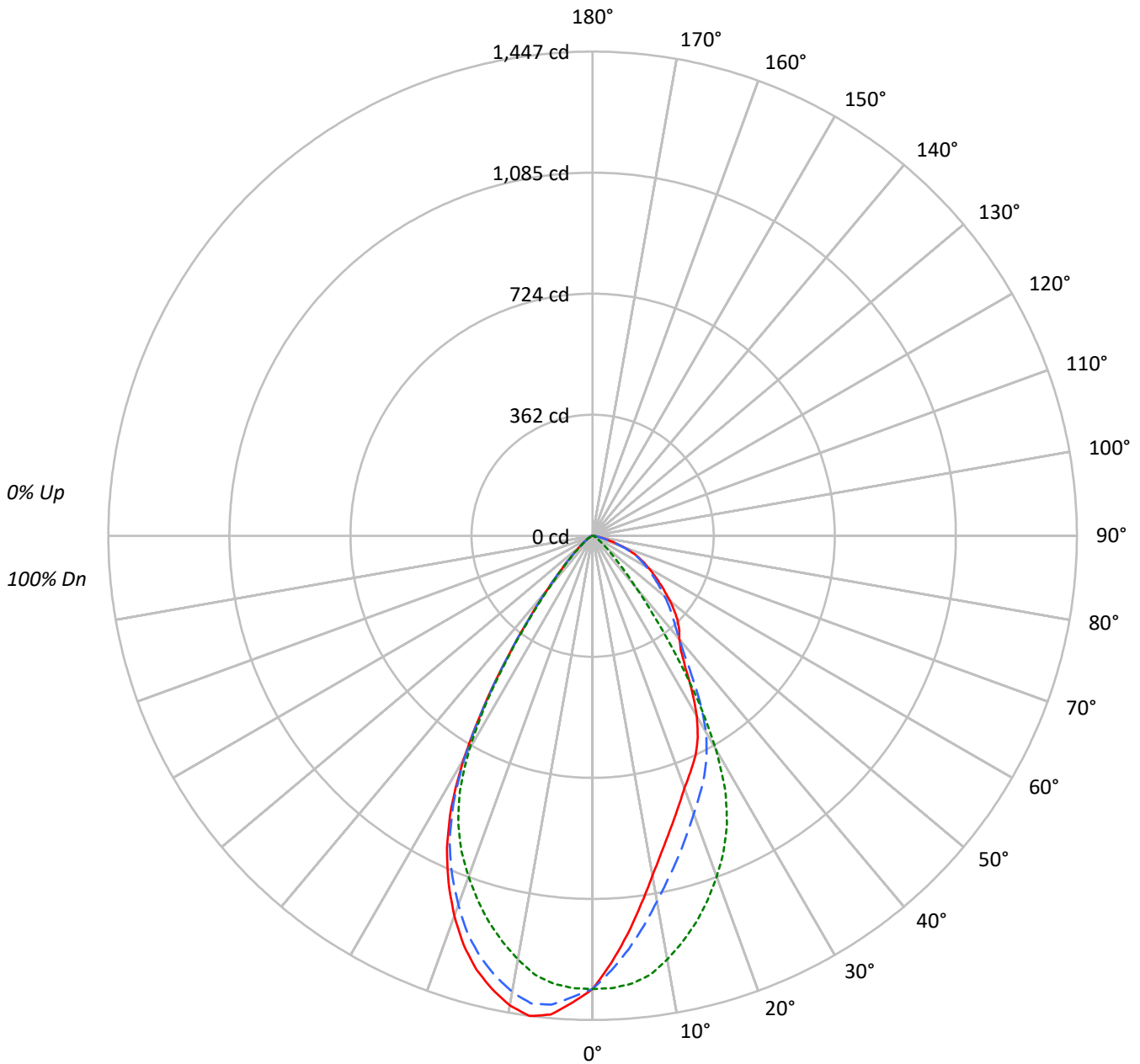
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91								
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83								
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75								
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68								
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63								
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58								
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53								
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50								
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46								
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	88368	88368	88368
5°	78287	87986	94070
10°	68241	85141	94429
15°	60957	80740	90635
20°	55660	75232	83869
25°	52268	68364	74152
30°	46865	55528	58022
35°	38508	34374	35250
40°	34339	16905	17842
45°	33132	8433	9014
50°	30530	4476	4801
55°	27594	2684	2866
60°	25274	1853	1853
65°	23094	1467	1220
70°	18636	1202	897
75°	11520	807	403
80°	6500	601	0
85°	3518	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.2	8.5
10°-20°	322.6	22.1
20°-30°	410.5	28.1
30°-40°	294.1	20.1
40°-50°	146.7	10.0
50°-60°	88.8	6.1
60°-70°	54.3	3.7
70°-80°	18.8	1.3
80°-90°	2.0	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	857.3	58.6
0°-40°	1151.4	78.8
0°-60°	1387.0	94.9
0°-90°	1462.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1462.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1354	1354	1354	1354	1354	
5°	1195	1240	1344	1406	1436	109
15°	902	992	1195	1301	1342	254
25°	726	791	950	1011	1030	331
35°	484	521	432	443	443	309
45°	359	336	91	101	98	275
55°	243	228	24	25	25	218
65°	150	145	10	8	8	146
75°	46	41	3	2	2	53
85°	5	3	0	0	0	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5
2.5°	1277.3	1278.9	1282.1	1278.9	1280.5	1288.4	1285.2	1286.8	1291.5	1299.4	1294.7
5°	1195.4	1197.0	1204.9	1200.2	1203.3	1212.8	1212.8	1219.1	1228.5	1239.5	1239.5
7.5°	1110.4	1113.5	1121.4	1118.3	1123.0	1135.6	1137.2	1146.6	1159.2	1175.0	1182.8
10°	1030.1	1033.2	1041.1	1039.5	1045.8	1058.4	1064.7	1074.2	1089.9	1108.8	1118.3
12.5°	962.3	965.5	971.8	971.8	979.7	992.3	998.6	1011.2	1026.9	1047.4	1060.0
15°	902.5	907.2	913.5	913.5	921.4	934.0	941.9	952.9	970.2	992.3	1006.4
17.5°	850.5	852.1	858.4	858.4	866.3	878.9	886.7	897.8	915.1	935.6	951.3
20°	801.7	803.3	809.6	811.1	817.4	828.5	836.3	847.4	863.1	883.6	897.8
22.5°	763.9	767.0	771.8	773.3	776.5	787.5	797.0	804.8	819.0	836.3	850.5
25°	726.1	727.7	732.4	734.0	738.7	746.6	752.9	760.7	773.3	790.7	801.7
27.5°	680.4	685.1	686.7	688.3	693.0	699.3	705.6	711.9	722.9	737.1	746.6
30°	622.1	623.7	628.4	631.6	636.3	642.6	650.5	656.8	666.2	677.3	683.6
32.5°	554.4	556.0	560.7	563.9	571.7	578.0	584.3	589.1	595.4	601.7	601.7
35°	483.5	488.3	489.8	494.6	502.4	508.7	513.5	515.0	518.2	521.3	510.3
37.5°	433.1	436.3	439.4	442.6	448.9	453.6	456.8	456.8	455.2	452.0	437.9
40°	403.2	404.8	407.9	409.5	415.8	419.0	419.0	415.8	409.5	401.6	379.6
42.5°	382.7	384.3	385.9	387.5	390.6	392.2	390.6	384.3	376.4	365.4	340.2
45°	359.1	360.7	362.3	362.3	365.4	365.4	363.8	357.5	348.1	335.5	308.7
47.5°	330.8	332.3	333.9	335.5	337.1	337.1	335.5	329.2	319.7	308.7	280.4
50°	300.8	302.4	304.0	304.0	307.1	307.1	305.6	299.3	291.4	280.4	255.2
52.5°	270.9	272.5	272.5	275.6	275.6	275.6	274.1	267.8	261.5	253.6	230.0
55°	242.6	244.1	244.1	247.3	248.9	247.3	245.7	241.0	234.7	228.4	209.5
57.5°	217.4	218.9	218.9	220.5	222.1	220.5	218.9	215.8	212.6	206.3	190.6
60°	193.7	195.3	195.3	196.9	196.9	195.3	195.3	192.2	189.0	185.9	171.7
62.5°	171.7	171.7	171.7	173.3	173.3	171.7	171.7	168.5	167.0	165.4	154.4
65°	149.6	149.6	149.6	149.6	149.6	146.5	146.5	144.9	143.3	144.9	135.5
67.5°	124.4	124.4	122.9	122.9	122.9	119.7	119.7	119.7	118.1	119.7	111.8
70°	97.7	97.7	96.1	96.1	94.5	91.4	91.4	91.4	89.8	91.4	86.6
72.5°	69.3	70.9	67.7	67.7	66.2	63.0	64.6	63.0	64.6	64.6	61.4
75°	45.7	47.3	44.1	44.1	42.5	41.0	41.0	41.0	42.5	41.0	39.4
77.5°	28.4	29.9	28.4	28.4	26.8	25.2	25.2	25.2	25.2	25.2	23.6
80°	17.3	17.3	17.3	15.8	15.8	14.2	14.2	14.2	14.2	14.2	12.6
82.5°	9.5	9.5	9.5	9.5	9.5	7.9	7.9	7.9	7.9	7.9	6.3
85°	4.7	4.7	4.7	4.7	4.7	3.2	3.2	3.2	3.2	3.2	3.2
87.5°	1.6	1.6	1.6	1.6	1.6	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	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5
2.5°	1308.8	1315.1	1310.4	1329.3	1326.2	1340.3	1338.8	1352.9	1351.4	1352.9	1356.1
5°	1258.4	1271.0	1272.6	1296.2	1297.8	1319.9	1324.6	1343.5	1346.6	1352.9	1360.8
7.5°	1203.3	1222.2	1228.5	1255.3	1264.7	1288.4	1297.8	1323.0	1329.3	1340.3	1349.8
10°	1143.5	1165.5	1175.0	1206.5	1219.1	1245.8	1258.4	1285.2	1294.7	1307.3	1318.3
12.5°	1086.8	1110.4	1123.0	1156.1	1173.4	1200.2	1214.3	1242.7	1252.1	1267.9	1278.9
15°	1033.2	1058.4	1072.6	1105.7	1123.0	1152.9	1167.1	1195.4	1206.5	1222.2	1233.2
17.5°	978.1	1003.3	1019.0	1050.5	1072.6	1097.8	1113.5	1141.9	1152.9	1167.1	1178.1
20°	924.5	949.7	963.9	995.4	1015.9	1041.1	1055.3	1083.6	1091.5	1105.7	1115.1
22.5°	874.1	897.8	910.4	943.4	960.8	982.8	997.0	1022.2	1031.6	1042.7	1049.0
25°	823.7	844.2	853.7	882.0	896.2	916.7	927.7	949.7	959.2	968.6	976.5
27.5°	767.0	778.1	781.2	803.3	814.3	833.2	837.9	858.4	866.3	872.6	878.9
30°	696.2	697.7	688.3	699.3	704.0	718.2	718.2	737.1	743.4	748.1	754.4
32.5°	606.4	596.9	574.9	571.7	568.6	576.5	573.3	589.1	595.4	598.5	603.2
35°	507.2	486.7	450.5	436.3	426.8	425.3	420.5	431.6	436.3	439.4	442.6
37.5°	420.5	390.6	344.9	319.7	304.0	297.7	291.4	297.7	300.8	304.0	307.1
40°	357.5	319.7	266.2	234.7	212.6	203.2	195.3	198.5	201.6	204.8	206.3
42.5°	311.9	269.3	211.1	173.3	151.2	140.2	132.3	133.9	135.5	137.0	140.2
45°	277.2	231.5	171.7	130.7	108.7	97.7	91.4	91.4	92.9	94.5	96.1
47.5°	248.9	200.0	140.2	100.8	80.3	69.3	63.0	63.0	64.6	64.6	66.2
50°	222.1	173.3	115.0	78.8	59.9	50.4	45.7	44.1	45.7	45.7	47.3
52.5°	200.0	152.8	96.1	63.0	45.7	37.8	33.1	33.1	33.1	33.1	33.1
55°	179.6	133.9	80.3	50.4	36.2	29.9	25.2	23.6	23.6	23.6	23.6
57.5°	163.8	119.7	69.3	42.5	29.9	23.6	20.5	18.9	18.9	18.9	18.9
60°	148.1	105.5	59.9	34.7	23.6	20.5	17.3	14.2	14.2	14.2	14.2
62.5°	132.3	91.4	50.4	29.9	20.5	15.8	14.2	11.0	11.0	11.0	11.0
65°	115.0	78.8	42.5	23.6	15.8	12.6	11.0	9.5	9.5	7.9	7.9
67.5°	94.5	63.0	34.7	20.5	14.2	11.0	9.5	7.9	6.3	6.3	6.3
70°	72.5	47.3	26.8	15.8	11.0	9.5	6.3	6.3	4.7	4.7	4.7
72.5°	52.0	33.1	18.9	12.6	7.9	6.3	6.3	4.7	4.7	4.7	3.2
75°	33.1	22.1	12.6	7.9	6.3	4.7	4.7	3.2	3.2	3.2	3.2
77.5°	20.5	14.2	9.5	6.3	4.7	3.2	3.2	3.2	1.6	1.6	1.6
80°	11.0	7.9	4.7	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	6.3	4.7	3.2	1.6	1.6	1.6	1.6	1.6	0.0	0.0	0.0
85°	3.2	1.6	1.6	1.6	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	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5	1354.5
2.5°	1365.5	1373.4	1368.7	1371.8	1386.0	1379.7	1390.7	1390.7	1403.3	1403.3	1393.9
5°	1375.0	1384.4	1386.0	1390.7	1409.6	1406.5	1419.1	1422.2	1436.4	1439.6	1431.7
7.5°	1368.7	1379.7	1384.4	1392.3	1411.2	1409.6	1423.8	1430.1	1442.7	1447.4	1441.1
10°	1338.8	1351.4	1357.7	1365.5	1386.0	1384.4	1400.2	1408.1	1419.1	1423.8	1419.1
12.5°	1299.4	1313.6	1319.9	1327.7	1348.2	1346.6	1362.4	1370.3	1379.7	1386.0	1381.3
15°	1255.3	1264.7	1275.8	1283.6	1302.5	1301.0	1316.7	1324.6	1332.5	1340.3	1335.6
17.5°	1198.6	1208.0	1219.1	1225.4	1244.3	1244.3	1256.9	1263.2	1274.2	1280.5	1274.2
20°	1134.0	1145.0	1152.9	1157.6	1175.0	1173.4	1186.0	1192.3	1201.7	1206.5	1201.7
22.5°	1066.3	1075.7	1082.0	1085.2	1099.4	1097.8	1107.2	1113.5	1121.4	1126.1	1121.4
25°	989.1	995.4	1000.1	1001.7	1014.3	1011.2	1023.8	1023.8	1030.1	1034.8	1030.1
27.5°	889.9	894.6	897.8	896.2	905.6	900.9	911.9	904.1	916.7	919.8	915.1
30°	762.3	765.5	768.6	762.3	768.6	762.3	771.8	760.7	771.8	776.5	771.8
32.5°	611.1	611.1	614.3	606.4	609.5	603.2	608.0	604.8	608.0	612.7	608.0
35°	448.9	448.9	452.0	447.3	448.9	442.6	445.7	442.6	444.2	447.3	445.7
37.5°	311.9	310.3	315.0	311.9	313.4	310.3	311.9	308.7	310.3	311.9	310.3
40°	211.1	211.1	214.2	212.6	214.2	212.6	214.2	212.6	212.6	212.6	211.1
42.5°	141.8	143.3	144.9	144.9	146.5	144.9	146.5	144.9	144.9	144.9	143.3
45°	97.7	97.7	99.2	99.2	100.8	100.8	100.8	99.2	99.2	99.2	99.2
47.5°	67.7	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	67.7
50°	47.3	48.8	48.8	48.8	48.8	48.8	48.8	47.3	47.3	47.3	47.3
52.5°	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	33.1	33.1
55°	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
57.5°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
60°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
62.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
65°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
67.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
75°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	0.0	1.6	0.0	0.0	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	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: LD6A15D010TE ERM6A15835 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1354.5	1354.5	1354.5	1354.5
2.5°	1389.2	1401.8	1397.0	1397.0
5°	1427.0	1441.1	1438.0	1436.4
7.5°	1438.0	1450.6	1447.4	1447.4
10°	1415.9	1428.5	1425.4	1425.4
12.5°	1379.7	1390.7	1389.2	1387.6
15°	1334.0	1345.1	1343.5	1341.9
17.5°	1272.6	1285.2	1283.6	1282.1
20°	1198.6	1209.6	1209.6	1208.0
22.5°	1118.3	1126.1	1127.7	1124.6
25°	1026.9	1033.2	1033.2	1030.1
27.5°	911.9	916.7	916.7	915.1
30°	770.2	771.8	773.3	770.2
32.5°	604.8	604.8	608.0	604.8
35°	441.0	441.0	444.2	442.6
37.5°	307.1	307.1	308.7	307.1
40°	209.5	209.5	211.1	209.5
42.5°	143.3	141.8	143.3	143.3
45°	97.7	97.7	99.2	97.7
47.5°	67.7	67.7	67.7	67.7
50°	47.3	47.3	47.3	47.3
52.5°	33.1	33.1	33.1	33.1
55°	23.6	25.2	25.2	25.2
57.5°	17.3	18.9	18.9	18.9
60°	14.2	14.2	14.2	14.2
62.5°	11.0	11.0	11.0	11.0
65°	7.9	7.9	7.9	7.9
67.5°	6.3	6.3	6.3	6.3
70°	4.7	4.7	4.7	4.7
72.5°	3.2	3.2	3.2	3.2
75°	1.6	1.6	1.6	1.6
77.5°	1.6	1.6	1.6	1.6
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)