

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: P1192095

Luminaire Tested: **LDA6A25950D010TE LARL15SP 6LAL1 30° Tilt**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14
Report Number: P1192095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26267)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A25950D010TE LARL15SP 6LAL1 30° Tilt
Description: PORTFOLIO 6" Lensed Adjustable, Self-flange Trim Ring, 15° Spot
Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

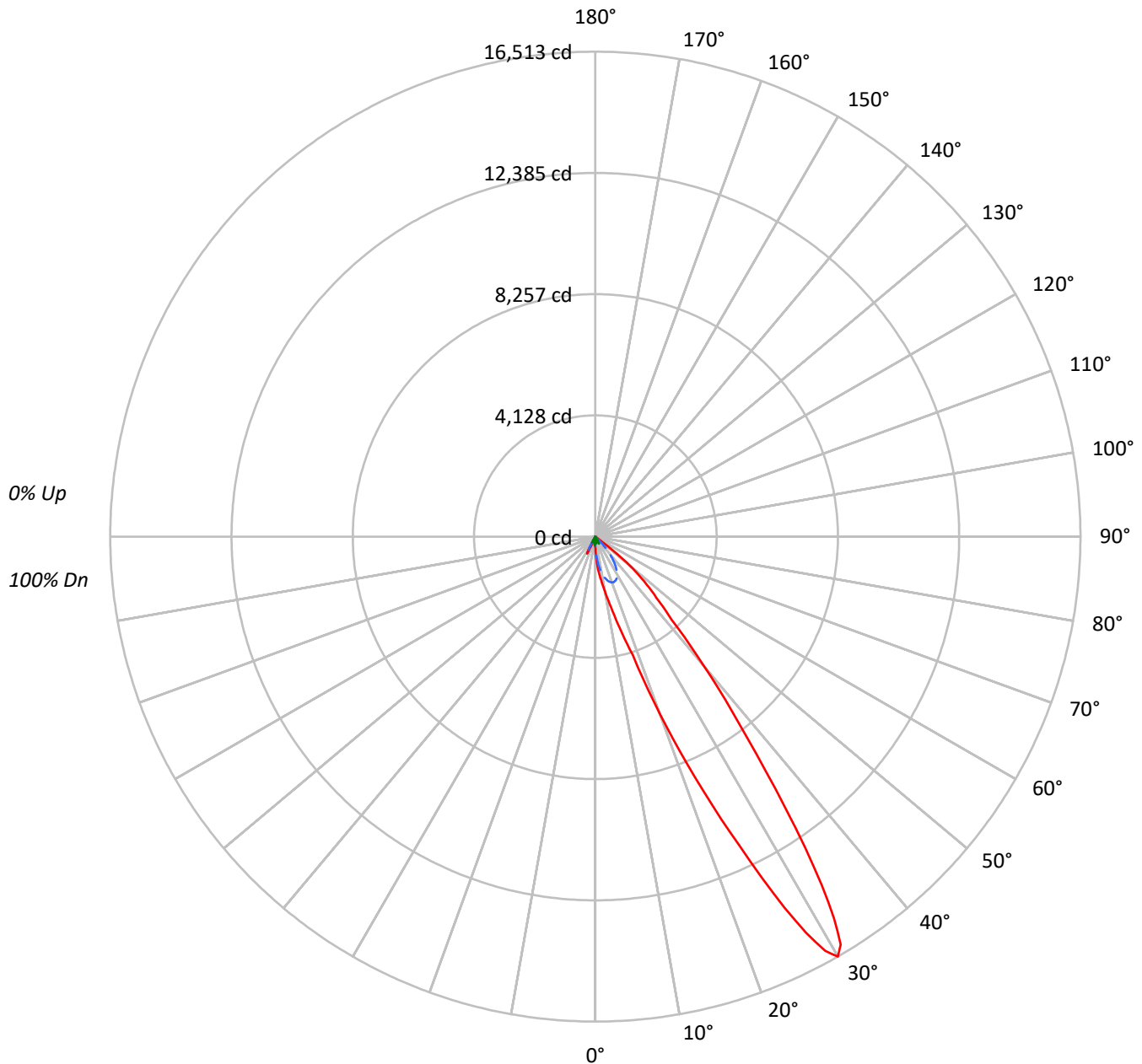
Lumens per Lamp: N/A
Luminaire Lumens: 2285.1 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 2.44 / 0.33 / 1.32
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): NR
Input Current (Ain): 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
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	113	109	106	104		110	107	105	102		103	101	99		99	98	96		96	95	93
2	106	100	95	91		103	98	94	90		95	91	88		92	89	86		89	87	85
3	99	91	86	81		97	90	85	80		87	83	79		85	81	78		82	79	76
4	93	84	77	72		91	82	76	72		80	75	71		78	74	70		76	72	69
5	87	77	70	64		85	76	69	64		74	68	64		72	67	63		70	66	62
6	81	70	63	58		79	69	63	58		68	62	57		66	61	57		65	60	56
7	75	64	57	52		74	64	57	52		62	56	52		61	55	51		60	55	51
8	71	59	52	47		69	59	52	47		57	51	47		56	51	47		55	50	46
9	66	55	47	43		65	54	47	43		53	47	42		52	46	42		51	46	42
10	62	50	43	39		61	50	43	39		49	43	39		48	42	38		47	42	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	18431	18431	18431
5°	63058	15678	2097
10°	105531	8706	1030
15°	183310	3212	874
20°	374515	2106	1505
25°	703014	4107	26572
30°	1045268	7153	4298
35°	754343	549	341
40°	409725	222	0
45°	227434	240	0
50°	133079	264	0
55°	4234	191	0
60°	1458	340	0
65°	662	402	0
70°	497	497	0
75°	233	868	0
80°	0	1294	0
85°	0	2579	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	2.1
10°-20°	244.7	10.7
20°-30°	787.4	34.5
30°-40°	819.7	35.9
40°-50°	349.2	15.3
50°-60°	29.0	1.3
60°-70°	3.0	0.1
70°-80°	2.6	0.1
80°-90°	2.4	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°	1079.2	47.2
0°-40°	1898.9	83.1
0°-60°	2277.1	99.7
0°-90°	2285.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2285.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	336	336	336	336	336	
5°	1146	835	285	51	38	130
15°	3230	1538	57	20	15	1056
25°	11622	1638	68	205	439	5582
35°	11272	1170	8	7	5	6978
45°	2934	200	3	2	0	2413
55°	44	6	2	2	0	276
65°	5	3	3	2	0	6
75°	1	3	4	3	0	1
85°	0	3	4	3	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2
2.5°	746.8	707.7	737.5	720.1	708.8	705.6	723.0	703.7	683.0	682.0	675.9
5°	1145.9	1109.0	1139.6	1112.9	1100.7	1090.4	1098.4	1066.6	1032.8	1033.8	1018.4
7.5°	1493.5	1473.1	1493.5	1464.7	1455.5	1445.2	1442.1	1411.4	1371.1	1374.3	1350.6
10°	1895.8	1836.2	1869.0	1806.4	1790.8	1763.0	1753.9	1703.3	1639.7	1636.5	1602.5
12.5°	2450.2	2426.6	2459.5	2371.0	2352.5	2305.2	2279.5	2199.2	2094.4	2067.6	1989.3
15°	3229.9	3153.9	3186.8	3062.2	3027.2	2945.0	2888.4	2764.0	2664.1	2551.0	2431.7
17.5°	4220.5	4177.4	4219.4	3974.7	3884.1	3723.6	3590.9	3383.1	3171.3	3069.6	2901.7
20°	6419.7	6214.1	6236.6	5781.9	5491.9	5059.8	4714.1	4255.5	3834.7	3593.0	3316.4
22.5°	8860.6	8626.2	8568.6	7984.2	7492.6	6843.4	6236.6	5469.3	4723.5	4183.4	3714.5
25°	11622.5	11470.4	11169.0	10212.3	9366.9	8441.1	7548.2	6544.1	5577.2	4750.2	4046.7
26°	12934.0	12811.7	12358.9	11162.7	10068.3	8960.4	7940.1	6862.1	5819.0	4911.7	4124.8
27°	14179.8	14081.0	13492.5	12099.9	10731.8	9398.7	8224.9	7088.2	5992.9	5015.7	4180.5
28°	15277.4	15176.5	14416.4	12893.9	11257.4	9715.4	8403.9	7229.4	6092.5	5040.4	4177.4
29°	16131.0	16003.5	15022.2	13403.1	11566.0	9867.7	8439.9	7246.7	6078.1	4982.7	4119.8
30°	16512.7	16354.3	15195.0	13512.2	11571.1	9810.1	8338.1	7153.2	5961.1	4847.0	4012.6
31°	16213.4	16078.5	14881.3	13197.5	11257.4	9546.7	8085.1	6937.1	5738.7	4650.5	3870.7
32°	15341.0	15217.5	14113.9	12506.1	10663.8	9101.4	7717.8	6628.4	5443.6	4412.8	3706.2
33°	14144.8	14049.2	13059.5	11556.7	9901.6	8553.1	7278.8	6241.7	5088.7	4146.4	3505.5
34°	12779.7	12704.7	11801.5	10483.8	9069.5	7944.1	6777.8	5685.3	4700.8	3878.1	3355.5
35°	11271.8	11220.4	10483.8	9382.2	8241.5	7311.4	6221.2	5193.6	4310.0	3619.7	3193.9
36°	9838.9	9796.8	9235.1	8372.1	7453.5	6655.2	5618.4	4681.4	3935.5	3387.3	3042.6
37°	8614.8	8584.0	8168.5	7473.0	6696.4	5973.2	5004.4	4202.0	3609.4	3184.6	2887.2
38°	7596.5	7571.8	7234.4	6618.2	5916.8	5267.6	4411.9	3778.1	3331.7	3008.8	2711.5
39°	6647.2	6615.1	6311.8	5754.1	5140.1	4580.6	4018.9	3429.4	3113.7	2825.7	2522.3
40°	5725.4	5684.2	5417.8	4943.5	4431.3	3997.3	3493.3	3215.6	2936.6	2612.7	2328.9
42.5°	3842.0	3819.3	3674.2	3460.3	3243.3	3084.8	2925.3	2677.6	2383.5	2116.0	1906.1
45°	2933.6	2928.4	2857.5	2745.5	2601.4	2467.8	2254.8	2111.7	1913.2	1688.0	1537.7
47.5°	2250.6	2251.7	2185.9	2101.5	2002.7	1916.3	1761.0	1646.8	1504.9	1376.2	1260.1
50°	1560.4	1494.6	1503.9	1437.0	1356.8	1306.3	1162.3	1074.8	873.3	669.7	523.6
51°	1169.5	1083.2	1094.5	1019.4	936.0	891.8	757.1	668.5	479.3	314.7	205.6
52°	714.0	646.0	644.9	587.3	515.4	476.2	369.2	288.0	163.6	86.3	59.7
53°	319.8	274.7	264.4	225.3	176.9	153.3	104.8	77.2	57.6	44.3	34.0
54°	84.3	75.0	72.1	65.8	59.7	57.6	50.3	42.2	33.0	25.8	21.6
55°	44.3	41.2	40.0	38.1	34.9	34.0	29.8	25.8	20.5	18.5	16.4
57.5°	20.5	20.5	19.6	18.5	17.6	17.6	15.4	14.5	13.3	13.3	11.3
60°	13.3	13.3	13.3	12.3	12.3	11.3	10.3	9.4	8.2	9.4	8.2
61°	11.3	11.3	11.3	10.3	9.4	8.2	8.2	8.2	7.2	7.2	6.2
62°	8.2	8.2	7.2	7.2	6.2	6.2	6.2	6.2	5.1	6.2	6.2
63°	6.2	6.2	5.1	5.1	5.1	5.1	4.1	4.1	4.1	6.2	6.2
64°	5.1	5.1	5.1	4.1	4.1	4.1	4.1	4.1	4.1	5.1	4.1
65°	5.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.1	4.1	4.1
66°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.1	3.1	4.1	4.1



TEST NUMBER: P1192095

CATALOG NUMBER: LDA6A25950D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
72.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	1.1	1.1
75°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2
2.5°	675.9	663.4	637.8	632.6	608.0	593.5	597.6	589.5	457.8	322.9	201.7
5°	1007.0	979.2	941.1	927.8	885.7	863.0	855.9	835.2	566.8	284.9	94.6
7.5°	1331.0	1295.0	1248.7	1227.1	1169.5	1131.4	1106.8	1076.0	641.8	226.3	52.5
10°	1571.9	1530.7	1482.3	1454.5	1389.8	1351.7	1311.4	1277.6	682.0	156.4	39.1
12.5°	1892.7	1811.5	1710.7	1650.0	1554.3	1501.8	1455.5	1422.5	697.4	93.7	29.8
15°	2320.7	2190.0	2046.9	1937.0	1774.3	1675.8	1597.4	1537.7	685.0	56.6	25.8
17.5°	2735.1	2549.9	2362.8	2213.6	2027.4	1880.3	1730.2	1612.9	632.6	45.2	23.6
20°	3079.8	2862.8	2624.0	2415.3	2200.3	2025.4	1825.7	1660.2	548.3	36.1	25.8
22.5°	3345.1	3068.4	2797.8	2538.7	2282.6	2081.9	1863.0	1670.4	441.3	36.9	36.1
25°	3536.4	3173.2	2885.3	2590.1	2311.3	2091.2	1843.3	1637.7	325.1	67.9	121.3
26°	3575.6	3194.9	2896.6	2585.0	2301.1	2075.8	1820.6	1617.0	293.1	134.9	267.5
27°	3597.2	3192.0	2888.4	2564.3	2279.5	2053.2	1795.0	1598.5	288.0	230.4	399.0
28°	3577.6	3166.2	2853.4	2527.4	2244.5	2023.3	1765.2	1577.0	284.9	282.9	378.6
29°	3524.1	3120.9	2800.9	2469.8	2191.0	1976.0	1719.8	1546.1	255.0	225.3	228.4
30°	3442.7	3057.1	2724.8	2392.5	2123.1	1908.1	1655.1	1496.7	168.7	113.0	96.6
31°	3341.9	2974.7	2631.3	2303.1	2046.1	1825.7	1587.1	1432.9	87.5	48.3	45.2
32°	3230.9	2876.1	2530.5	2212.5	1967.8	1746.6	1530.7	1376.2	57.6	26.7	25.8
33°	3113.7	2760.9	2419.2	2119.0	1880.3	1658.2	1471.9	1315.7	43.2	16.4	15.4
34°	2998.5	2637.3	2307.3	2018.2	1785.7	1578.9	1418.5	1245.6	34.9	12.3	10.3
35°	2867.9	2503.6	2192.0	1911.2	1684.0	1511.1	1365.1	1169.5	27.8	8.2	8.2
36°	2715.6	2361.8	2072.7	1799.1	1587.1	1448.3	1306.3	1086.3	21.6	6.2	7.2
37°	2554.1	2220.8	1952.4	1688.0	1508.0	1390.7	1235.3	1000.8	18.5	5.1	6.2
38°	2387.4	2081.0	1822.6	1581.0	1438.9	1328.0	1155.2	912.4	15.4	4.1	5.1
39°	2223.8	1937.9	1693.1	1494.6	1374.3	1253.8	1063.5	821.8	13.3	4.1	5.1
40°	2064.5	1793.9	1577.9	1419.6	1302.3	1163.4	969.0	727.3	9.4	3.1	5.1
42.5°	1685.9	1495.7	1358.9	1200.4	1067.8	911.4	712.8	472.3	7.2	3.1	4.1
45°	1411.4	1255.0	1095.5	916.4	785.8	625.4	421.7	200.5	7.2	3.1	4.1
47.5°	1116.0	932.0	697.4	471.1	307.5	158.4	49.4	27.8	5.1	3.1	4.1
50°	325.1	188.2	69.9	42.2	31.8	19.6	12.3	11.3	4.1	3.1	4.1
51°	93.7	55.6	36.9	24.6	18.5	11.3	9.4	10.3	4.1	3.1	3.1
52°	44.3	31.8	21.6	16.4	12.3	9.4	8.2	9.4	4.1	3.1	3.1
53°	25.8	19.6	15.4	13.3	9.4	8.2	6.2	8.2	4.1	3.1	3.1
54°	17.6	15.4	13.3	11.3	8.2	6.2	6.2	8.2	4.1	3.1	3.1
55°	15.4	13.3	11.3	10.3	7.2	6.2	6.2	6.2	3.1	2.0	3.1
57.5°	10.3	10.3	8.2	8.2	6.2	4.1	2.0	5.1	4.1	3.1	3.1
60°	7.2	7.2	7.2	5.1	2.0	2.0	1.1	4.1	4.1	3.1	4.1
61°	7.2	7.2	5.1	4.1	2.0	2.0	1.1	4.1	4.1	3.1	4.1
62°	6.2	5.1	4.1	4.1	2.0	2.0	1.1	4.1	4.1	3.1	4.1
63°	5.1	4.1	4.1	4.1	2.0	1.1	1.1	4.1	4.1	3.1	4.1
64°	4.1	4.1	4.1	4.1	1.1	1.1	1.1	4.1	4.1	3.1	4.1
65°	4.1	4.1	4.1	3.1	1.1	1.1	1.1	3.1	4.1	3.1	4.1
66°	4.1	4.1	3.1	3.1	1.1	1.1	1.1	3.1	4.1	3.1	4.1



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
72.5°	1.1	2.0	2.0	2.0	0.0	0.0	0.0	3.1	4.1	3.1	4.1
75°	1.1	1.1	2.0	2.0	0.0	0.0	0.0	3.1	4.1	4.1	4.1
77.5°	1.1	1.1	2.0	2.0	0.0	0.0	0.0	3.1	4.1	4.1	5.1
80°	1.1	1.1	2.0	2.0	0.0	0.0	0.0	3.1	4.1	4.1	5.1
82.5°	1.1	1.1	2.0	2.0	0.0	0.0	0.0	3.1	4.1	4.1	5.1
85°	1.1	1.1	2.0	2.0	0.0	0.0	0.0	3.1	4.1	4.1	5.1
87.5°	1.1	1.1	2.0	2.0	0.0	0.0	0.0	3.1	4.1	4.1	5.1
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: LDA6A25950D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	336.2	336.2	336.2
2.5°	128.6	92.6	84.3
5°	51.4	42.2	38.1
7.5°	31.8	26.7	24.6
10°	25.8	19.6	18.5
12.5°	20.5	17.6	16.4
15°	19.6	16.4	15.4
17.5°	19.6	18.5	17.6
20°	24.6	24.6	25.8
22.5°	42.2	49.4	55.6
25°	204.8	331.1	439.3
26°	428.9	604.9	647.0
27°	531.9	550.4	528.7
28°	409.4	367.2	345.6
29°	219.2	183.1	167.5
30°	87.5	72.1	67.9
31°	42.2	36.1	34.9
32°	23.6	19.6	19.6
33°	14.5	12.3	11.3
34°	10.3	8.2	7.2
35°	7.2	6.2	5.1
36°	6.2	4.1	3.1
37°	5.1	3.1	3.1
38°	4.1	3.1	2.0
39°	3.1	2.0	1.1
40°	3.1	1.1	0.0
42.5°	2.0	1.1	0.0
45°	2.0	0.0	0.0
47.5°	3.1	2.0	1.1
50°	2.0	1.1	0.0
51°	2.0	0.0	0.0
52°	2.0	0.0	0.0
53°	2.0	0.0	0.0
54°	2.0	0.0	0.0
55°	2.0	0.0	0.0
57.5°	2.0	0.0	0.0
60°	2.0	0.0	0.0
61°	2.0	0.0	0.0
62°	2.0	0.0	0.0
63°	2.0	1.1	0.0
64°	2.0	1.1	0.0
65°	2.0	1.1	0.0
66°	2.0	1.1	0.0



TEST NUMBER: P1192095

CATALOG NUMBER: LDA6A25950D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
72.5°	3.1	1.1	0.0
75°	3.1	1.1	0.0
77.5°	3.1	1.1	0.0
80°	3.1	1.1	0.0
82.5°	3.1	1.1	0.0
85°	3.1	1.1	0.0
87.5°	3.1	1.1	0.0
90°	0.0	0.0	0.0

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Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



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— 0°-180° - - 45°-225° - - - 90°-270°

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67.5°	4.1	3.1	3.1	3.1	3.1	3.1	3.1	2.0	2.0	3.1	3.1
70°	3.1	3.1	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

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67.5°	3.1	3.1	3.1	3.1	1.1	0.0	0.0	3.1	4.1	3.1	4.1
70°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	3.1	4.1	3.1	4.1

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67.5°	3.1	1.1	0.0
70°	3.1	1.1	0.0

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(END OF REPORT)