

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: P208735

Luminaire Tested: **LDSQA6A20840D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29053)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A20840D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1818.1 lumens
Efficiency: N/A
Efficacy: 63.1 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.36
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

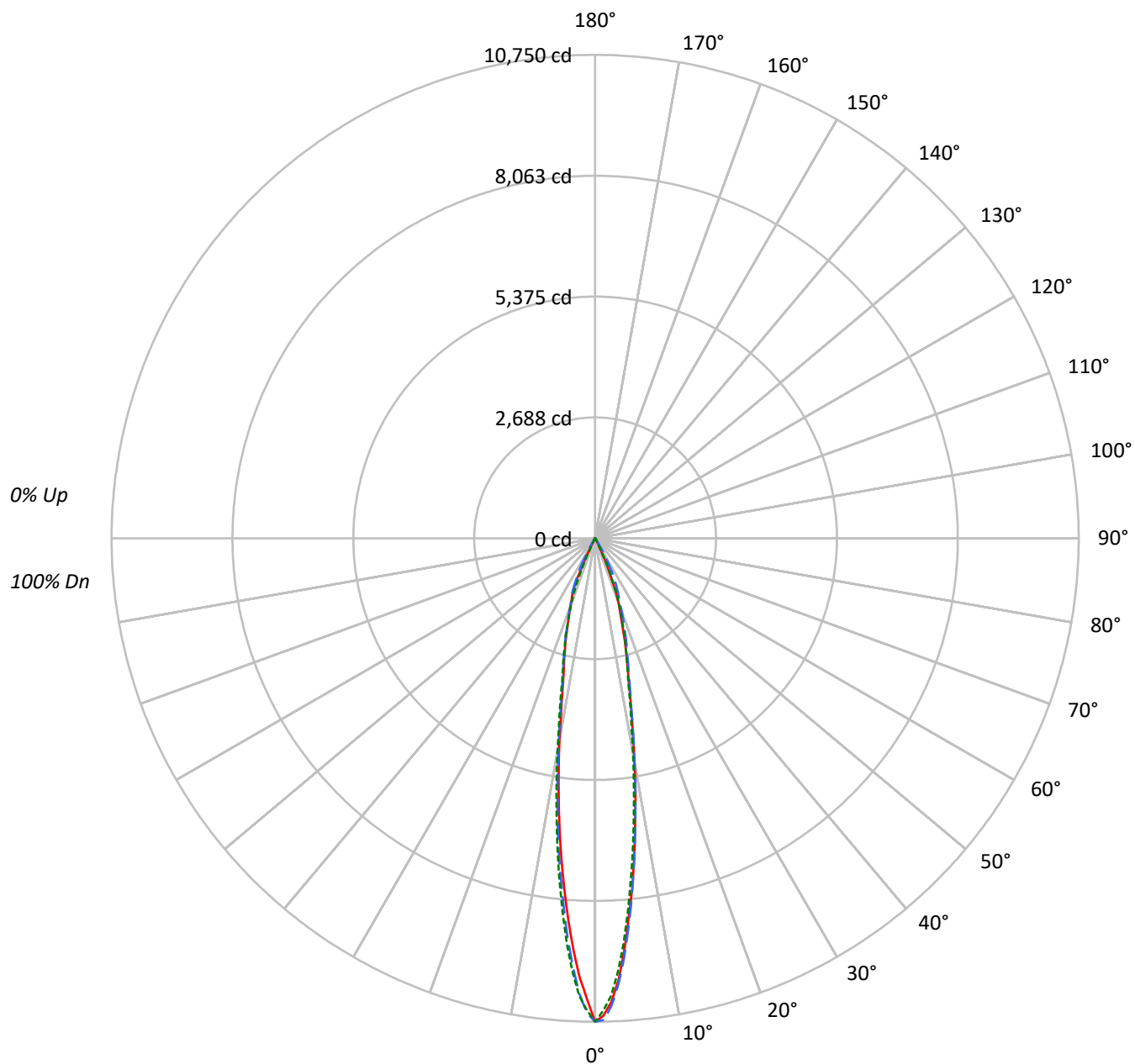
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P208735

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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	115	113	111	110	113	111	109	108		107	106	105		103	102	101		100	99	99
2	112	108	105	103	109	106	104	102		103	101	99		100	99	97		98	96	95
3	108	104	100	97	106	102	99	97		100	97	95		98	95	94		96	94	92
4	105	100	96	93	103	99	95	93		97	94	91		95	92	90		93	91	90
5	102	96	92	89	101	95	92	89		94	91	88		92	90	88		91	89	87
6	99	93	89	86	98	92	89	86		91	88	85		90	87	85		89	86	84
7	97	90	86	83	95	90	86	83		89	85	83		88	85	82		87	84	82
8	94	88	84	81	93	87	83	81		86	83	80		85	82	80		85	82	80
9	92	85	81	79	91	85	81	79		84	81	78		83	80	78		83	80	78
10	89	83	79	77	89	83	79	76		82	79	76		81	78	76		81	78	76

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	462844	462844	462844
5°	367950	360101	338759
10°	219225	211149	198659
15°	119785	119986	116224
20°	68628	70529	72495
25°	18119	18836	33839
30°	2476	2287	2212
35°	988	951	909
40°	382	382	382
45°	183	140	183
50°	100	54	154
55°	60	0	113
60°	69	0	0
65°	82	0	0
70°	101	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	682.7	37.5
10°-20°	768.2	42.3
20°-30°	342.1	18.8
30°-40°	20.9	1.1
40°-50°	3.4	0.2
50°-60°	0.6	0.0
60°-70°	0.2	0.0
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	1793.0	98.6
0°-40°	1813.9	99.8
0°-60°	1817.8	100.0
0°-90°	1818.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1818.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10750	10750	10750	10750	10750	
5°	8513	8613	8332	8136	7838	700
15°	2687	2804	2692	2673	2607	758
25°	381	1019	396	984	712	225
35°	19	30	18	31	17	14
45°	3	5	2	5	3	3
55°	1	1	0	1	2	1
65°	1	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CATALOG NUMBER: LDSQA6A20840D010TE LARL15SP 6LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	10749.9	10749.9	10749.9	10749.9	10749.9	10749.9	10749.9	10749.9	10749.9
1°	10618.0	10715.3	10715.3	10691.9	10498.2	10642.1	10560.7	10473.3	10245.7
2°	10312.7	10411.5	10401.7	10312.7	10172.5	10232.1	10120.5	10012.0	9773.0
3°	9841.6	9947.9	9928.3	9835.6	9648.6	9684.8	9525.0	9442.9	9168.5
4°	9208.4	9343.4	9320.0	9217.5	9029.8	9027.5	8860.2	8773.5	8519.4
5°	8513.4	8654.4	8612.9	8528.5	8331.8	8296.3	8136.5	8074.7	7838.0
6°	7845.6	7933.7	7890.8	7820.7	7608.1	7586.2	7434.7	7382.0	7163.4
7°	7134.0	7195.0	7152.8	7098.5	6883.7	6855.1	6731.4	6690.0	6476.7
8°	6383.9	6471.4	6411.1	6377.1	6174.4	6135.2	6010.8	5982.9	5811.8
9°	5743.2	5772.6	5708.5	5606.8	5489.2	5449.2	5317.3	5290.2	5170.3
10°	5014.3	5105.5	5055.7	4968.3	4829.6	4859.7	4668.3	4645.7	4543.9
11°	4380.3	4476.1	4423.3	4344.9	4219.8	4237.1	4080.3	3985.3	3969.5
12°	3857.2	3900.9	3885.1	3821.8	3720.8	3726.0	3586.6	3510.4	3494.6
13°	3347.6	3426.0	3433.6	3381.5	3260.2	3316.0	3211.9	3150.1	3125.3
14°	3002.4	3061.9	3086.1	3084.5	2953.4	3002.4	2920.2	2870.5	2845.6
15°	2687.3	2764.9	2804.1	2801.9	2691.8	2741.6	2673.0	2633.8	2607.4
16°	2391.8	2498.1	2562.2	2551.6	2449.1	2500.4	2432.5	2394.1	2364.7
17°	2094.8	2241.0	2335.3	2314.9	2207.9	2272.7	2207.9	2174.7	2143.8
18°	1866.4	1986.3	2118.9	2075.2	1956.1	2057.1	2001.3	1975.0	1946.3
19°	1661.4	1743.5	1916.2	1838.5	1730.7	1845.3	1803.8	1782.7	1755.6
20°	1497.8	1568.7	1722.4	1630.5	1539.3	1632.7	1621.4	1604.8	1582.2
21°	1288.2	1423.2	1546.8	1461.6	1341.8	1473.7	1488.0	1479.0	1462.4
22°	1019.9	1262.6	1419.4	1264.1	1107.3	1357.6	1387.0	1380.2	1368.1
23°	793.8	1073.4	1301.8	1082.5	862.3	1228.7	1272.4	1267.9	1227.9
24°	578.9	878.9	1154.1	869.1	620.4	1053.1	1136.7	1129.2	984.5
25°	381.4	684.5	1019.1	652.0	396.5	851.8	984.5	971.6	712.3
26°	245.0	500.5	897.8	445.5	211.1	636.2	823.1	787.0	441.7
27°	117.6	349.0	749.3	262.3	102.5	424.4	660.3	579.7	213.3
28°	73.9	183.2	595.5	130.4	69.3	235.9	505.8	367.9	83.7
29°	60.3	90.5	441.0	73.9	56.5	108.5	362.6	179.4	58.0
30°	49.8	60.3	300.8	56.5	46.0	60.3	238.2	70.1	44.5
32.5°	31.7	37.7	69.3	35.4	30.2	34.7	56.5	33.9	27.9
35°	18.8	24.1	30.2	23.4	18.1	22.6	30.9	21.9	17.3
37.5°	11.3	14.3	19.6	14.3	11.3	14.3	19.6	14.3	10.6
40°	6.8	9.0	13.6	9.0	6.8	9.0	13.6	9.0	6.8
42.5°	4.5	5.3	9.0	5.3	3.8	5.3	9.0	6.0	4.5
45°	3.0	3.8	5.3	3.0	2.3	3.0	5.3	3.8	3.0
47.5°	2.3	2.3	3.0	1.5	1.5	2.3	3.8	3.0	2.3
50°	1.5	1.5	2.3	0.8	0.8	0.8	2.3	2.3	2.3
52.5°	0.8	0.8	0.8	0.0	0.0	0.0	1.5	1.5	1.5
55°	0.8	0.8	0.8	0.0	0.0	0.0	0.8	1.5	1.5
57.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.5	1.5
60°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.5	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	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	0.0	0.0
80°	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
85°	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
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°







62.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)