

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: P208719

Luminaire Tested: **LDSQA6A10840D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208719
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: LDSQA6A10840D010TE 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: 1003.2 lumens
Efficiency: N/A
Efficacy: 73.1 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

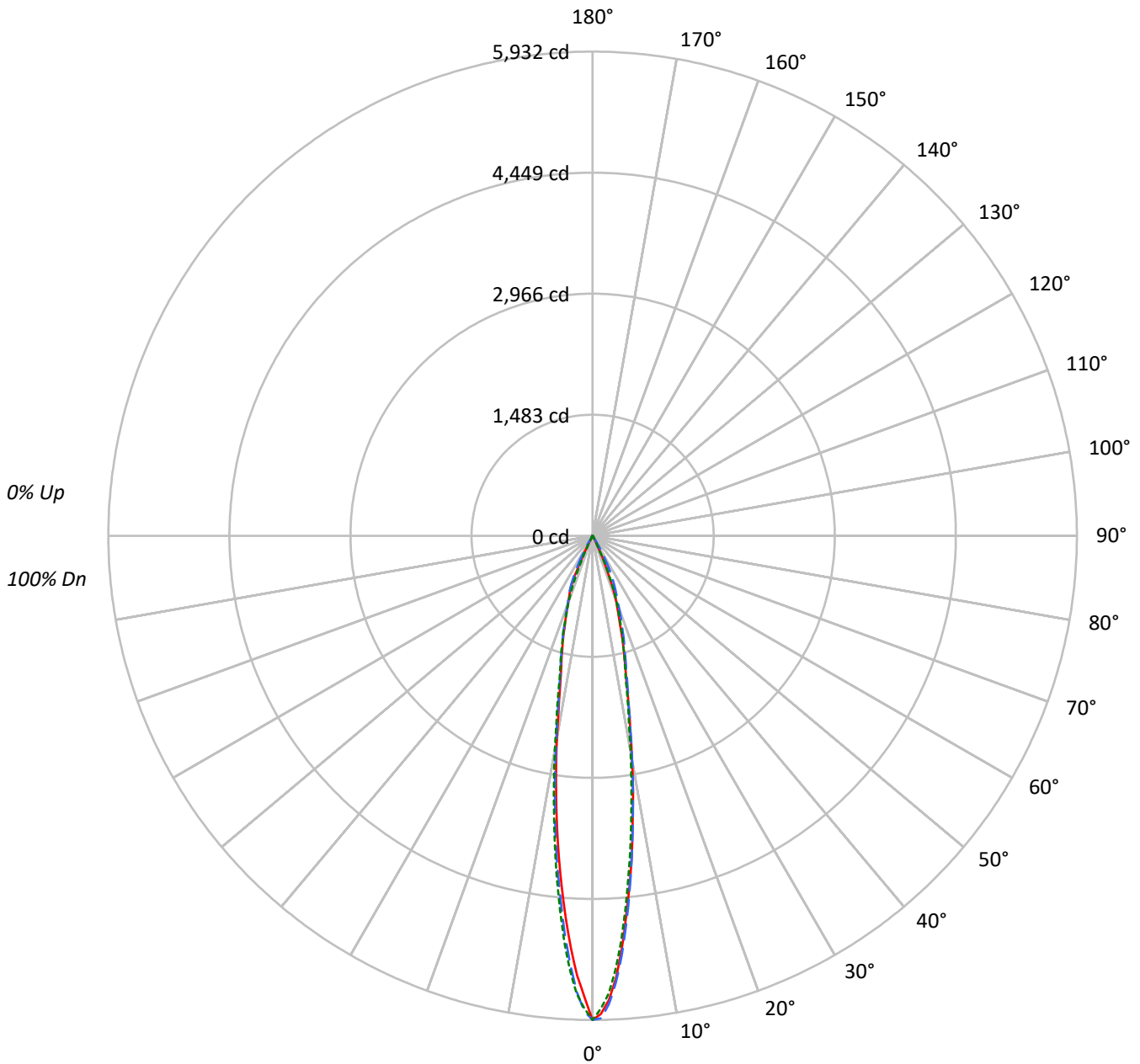
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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				100															
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	99	97																
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	94	95	94																
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	92	92	91																
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	90	90	88																
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	87	87	86																
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	85	85	83																
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	83	83	81																
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	80	80	79																
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	78	78	77																
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	76	76	75																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	255393	255393	255393
5°	203031	198700	186923
10°	120964	116509	109619
15°	66095	66207	64129
20°	37869	38914	40004
25°	10000	10394	18675
30°	1367	1263	1218
35°	547	526	505
40°	208	208	208
45°	104	73	104
50°	54	27	80
55°	30	0	60
60°	34	0	0
65°	41	0	0
70°	50	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°	376.7	37.6
10°-20°	423.9	42.3
20°-30°	188.8	18.8
30°-40°	11.5	1.1
40°-50°	1.8	0.2
50°-60°	0.3	0.0
60°-70°	0.1	0.0
70°-80°	0.0	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°	989.4	98.6
0°-40°	1000.9	99.8
0°-60°	1003.0	100.0
0°-90°	1003.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5932	5932	5932	5932	5932	
5°	4698	4752	4597	4490	4325	386
15°	1483	1547	1485	1475	1439	418
25°	210	562	219	543	393	124
35°	10	17	10	17	10	8
45°	2	3	1	3	2	1
55°	0	0	0	0	1	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	5931.7	5931.7	5931.7	5931.7	5931.7	5931.7	5931.7	5931.7	5931.7
1°	5858.9	5912.6	5912.6	5899.7	5792.8	5872.2	5827.3	5779.1	5653.5
2°	5690.5	5745.0	5739.5	5690.5	5613.1	5646.0	5584.4	5524.5	5392.7
3°	5430.5	5489.2	5478.3	5427.2	5324.0	5344.0	5255.8	5210.5	5059.1
4°	5081.1	5155.6	5142.7	5086.1	4982.5	4981.3	4889.0	4841.1	4700.9
5°	4697.6	4775.4	4752.5	4705.9	4597.4	4577.8	4489.7	4455.5	4324.9
6°	4329.1	4377.8	4354.1	4315.4	4198.1	4186.0	4102.4	4073.3	3952.7
7°	3936.5	3970.1	3946.9	3916.9	3798.4	3782.6	3714.3	3691.5	3573.8
8°	3522.6	3570.8	3537.6	3518.8	3407.0	3385.3	3316.7	3301.3	3206.9
9°	3169.0	3185.3	3149.9	3093.8	3028.9	3006.8	2934.0	2919.1	2852.9
10°	2766.8	2817.2	2789.7	2741.5	2664.9	2681.6	2575.9	2563.4	2507.3
11°	2417.0	2469.8	2440.7	2397.5	2328.4	2338.0	2251.5	2199.1	2190.3
12°	2128.4	2152.5	2143.8	2108.8	2053.1	2056.0	1979.0	1937.0	1928.3
13°	1847.2	1890.4	1894.6	1865.9	1798.9	1829.7	1772.3	1738.2	1724.5
14°	1656.7	1689.5	1702.9	1702.0	1629.7	1656.7	1611.3	1583.9	1570.2
15°	1482.8	1525.7	1547.3	1546.0	1485.3	1512.8	1474.9	1453.3	1438.7
16°	1319.8	1378.4	1413.8	1408.0	1351.4	1379.7	1342.2	1321.0	1304.8
17°	1155.9	1236.6	1288.6	1277.4	1218.3	1254.1	1218.3	1200.0	1182.9
18°	1029.9	1096.0	1169.2	1145.1	1079.4	1135.1	1104.3	1089.8	1074.0
19°	916.7	962.1	1057.3	1014.5	955.0	1018.2	995.3	983.7	968.7
20°	826.5	865.6	950.4	899.7	849.3	900.9	894.7	885.5	873.1
21°	710.8	785.3	853.5	806.5	740.4	813.2	821.1	816.1	806.9
22°	562.8	696.7	783.2	697.5	611.0	749.1	765.3	761.6	754.9
23°	438.0	592.3	718.3	597.3	475.8	678.0	702.1	699.6	677.6
24°	319.4	485.0	636.8	479.6	342.3	581.1	627.2	623.1	543.2
25°	210.5	377.7	562.4	359.8	218.8	470.0	543.2	536.1	393.1
26°	135.2	276.2	495.4	245.8	116.5	351.1	454.2	434.2	243.7
27°	64.9	192.6	413.4	144.7	56.6	234.2	364.4	319.9	117.7
28°	40.8	101.1	328.6	72.0	38.3	130.2	279.1	203.0	46.2
29°	33.3	49.9	243.3	40.8	31.2	59.9	200.1	99.0	32.0
30°	27.5	33.3	166.0	31.2	25.4	33.3	131.4	38.7	24.5
32.5°	17.5	20.8	38.3	19.5	16.6	19.1	31.2	18.7	15.4
35°	10.4	13.3	16.6	12.9	10.0	12.5	17.1	12.1	9.6
37.5°	6.2	7.9	10.8	7.9	6.2	7.9	10.8	7.9	5.8
40°	3.7	5.0	7.5	5.0	3.7	5.0	7.5	5.0	3.7
42.5°	2.5	2.9	5.0	2.9	2.1	2.9	5.0	3.3	2.5
45°	1.7	2.1	2.9	1.7	1.2	1.7	2.9	2.1	1.7
47.5°	1.2	1.2	1.7	0.8	0.8	1.2	2.1	1.7	1.2
50°	0.8	0.8	1.2	0.4	0.4	0.4	1.2	1.2	1.2
52.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.8	0.8	0.8
55°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.8	0.8
57.5°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.8
60°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.4	0.4	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°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)