

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: P1219588

Luminaire Tested: **LDSQA6A10950D010TE LARL20NF 6LSQA1H**

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: P1219588
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29055)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A10950D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

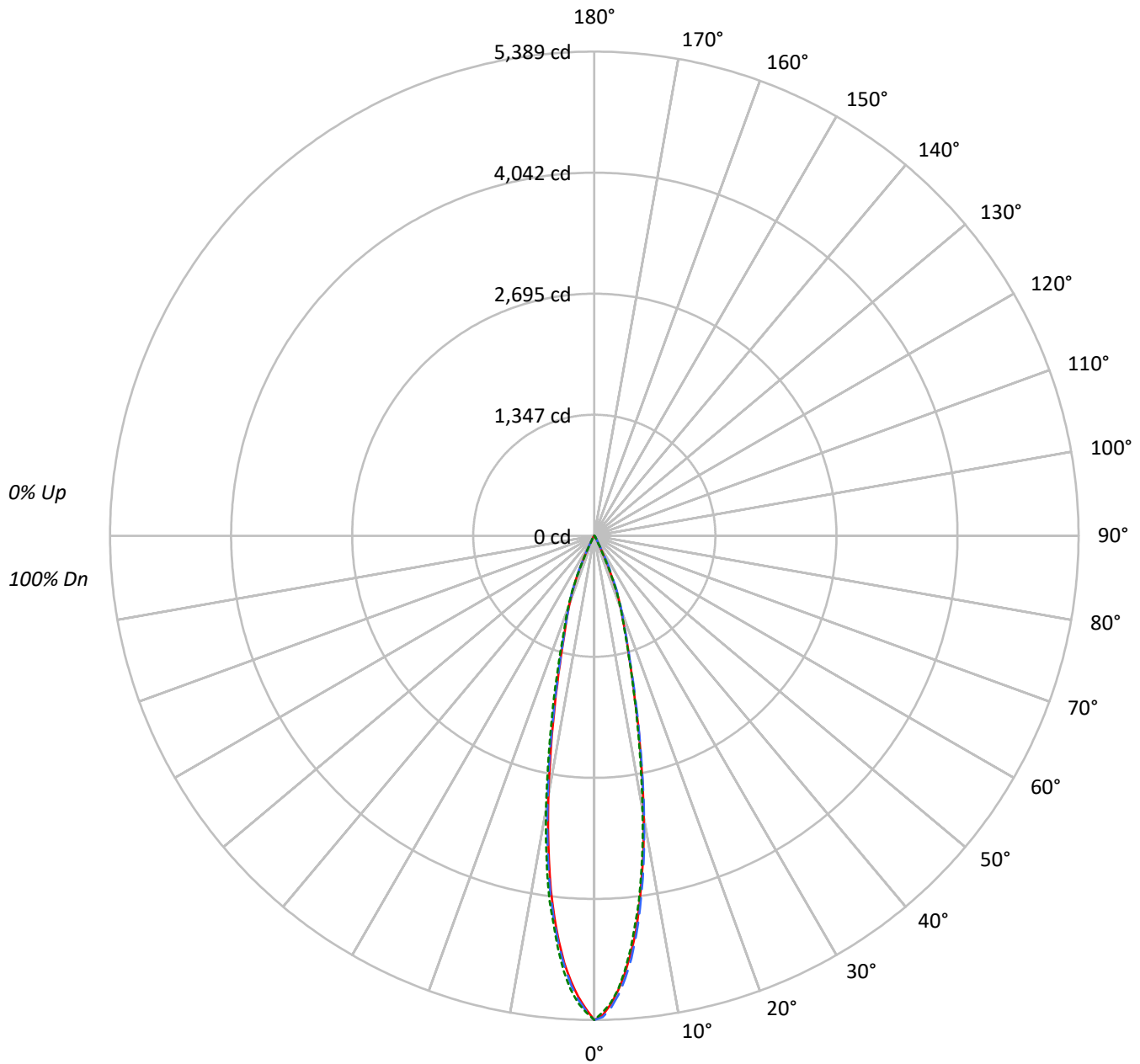
Lumens per Lamp: N/A
Luminaire Lumens: 1028.8 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 12.4
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					0
RW	70	50	30	10	70	50	30	10	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	100	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97
2	112	108	105	103	110	107	104	102	103	101	100	101	99	97	98	97	95	94	94	94
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89
5	102	97	93	90	101	96	92	89	94	91	89	93	90	88	91	89	87	86	86	86
6	99	94	90	87	98	93	89	86	92	88	86	90	88	85	89	87	85	84	84	84
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	85	83	82	82	82
8	94	88	84	82	93	88	84	81	87	83	81	86	83	81	85	82	80	80	80	80
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78	78	78
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	81	79	77	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	232031	232031	232031
5°	201643	199586	195986
10°	138535	135160	128388
15°	72139	71506	65859
20°	40114	39262	37136
25°	13269	12299	14423
30°	2943	2719	2431
35°	1099	1083	967
40°	433	416	393
45°	134	134	134
50°	20	20	47
55°	23	0	23
60°	0	0	0
65°	0	0	0
70°	0	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°	393.6	38.3
10°-20°	456.2	44.3
20°-30°	158.5	15.4
30°-40°	16.9	1.6
40°-50°	3.2	0.3
50°-60°	0.3	0.0
60°-70°	0.0	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°	1008.4	98.0
0°-40°	1025.3	99.7
0°-60°	1028.8	100.0
0°-90°	1028.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1028.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5389	5389	5389	5389	5389	
5°	4666	4722	4618	4561	4535	397
15°	1618	1654	1604	1511	1478	466
25°	279	363	259	317	304	151
35°	21	29	21	26	18	16
45°	2	6	2	6	2	2
55°	0	0	0	0	0	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°	5389.1	5389.1	5389.1	5389.1	5389.1	5389.1	5389.1	5389.1	5389.1
1°	5339.5	5338.7	5357.9	5363.1	5305.0	5384.4	5290.1	5386.6	5270.2
2°	5219.6	5226.2	5258.9	5254.4	5203.6	5273.4	5162.6	5238.6	5134.0
3°	5067.1	5078.9	5116.7	5113.8	5054.6	5114.5	4997.1	5064.9	4966.6
4°	4880.7	4908.2	4939.8	4948.2	4858.4	4912.3	4798.1	4861.6	4768.0
5°	4665.5	4701.9	4722.1	4710.7	4617.9	4667.4	4560.9	4651.3	4534.6
6°	4422.6	4450.9	4465.9	4445.7	4342.8	4399.1	4299.6	4376.3	4262.2
7°	4133.4	4165.3	4177.4	4157.6	4086.4	4109.0	4009.6	4073.9	3967.1
8°	3812.1	3860.3	3862.0	3844.0	3770.3	3745.4	3688.4	3735.5	3634.1
9°	3496.8	3532.8	3532.0	3518.8	3437.3	3401.0	3345.5	3379.0	3289.0
10°	3168.7	3200.9	3190.0	3177.8	3091.5	3051.2	2997.9	3015.6	2936.6
11°	2821.0	2862.1	2844.5	2832.8	2747.0	2707.2	2654.0	2658.8	2589.4
12°	2469.7	2528.1	2507.2	2499.4	2420.1	2381.6	2333.6	2328.5	2262.6
13°	2175.0	2210.8	2190.4	2186.3	2116.6	2083.1	2005.7	2026.3	1966.4
14°	1860.4	1923.2	1904.8	1902.9	1845.7	1814.5	1742.9	1759.0	1706.8
15°	1618.4	1668.4	1653.6	1652.9	1604.2	1574.5	1510.9	1524.1	1477.5
16°	1398.2	1445.2	1434.6	1436.4	1393.1	1367.0	1312.0	1323.0	1285.4
17°	1244.7	1261.6	1251.7	1251.7	1215.8	1199.6	1152.3	1162.9	1133.6
18°	1092.1	1098.3	1104.5	1105.6	1074.0	1063.1	1023.4	1032.9	1008.7
19°	966.9	981.9	985.6	986.3	958.5	952.2	918.0	925.4	905.5
20°	875.5	884.3	885.4	883.6	856.9	851.7	821.2	827.7	810.5
21°	769.7	785.2	781.9	779.0	751.1	747.0	721.3	722.4	705.5
22°	652.0	679.5	675.8	670.7	632.8	627.3	620.7	618.2	602.0
23°	507.6	571.9	568.6	561.2	506.2	522.7	518.6	514.0	498.8
24°	389.5	465.1	463.2	451.9	378.8	420.0	415.6	411.5	399.8
25°	279.3	362.8	363.1	345.4	258.9	332.6	317.1	314.2	303.6
26°	199.7	269.9	271.6	246.3	158.9	240.1	229.1	225.0	216.6
27°	121.6	187.9	191.6	161.5	99.1	161.1	154.2	149.8	125.5
28°	83.7	122.6	127.0	99.9	77.4	107.5	99.1	94.0	73.0
29°	71.6	80.1	83.3	70.5	65.3	71.6	67.5	65.3	59.2
30°	59.2	60.9	62.4	58.4	54.7	56.5	54.7	52.8	48.9
32.5°	37.4	40.8	41.8	38.9	35.6	36.6	36.6	34.1	30.9
35°	20.9	26.0	29.4	25.7	20.6	24.5	26.5	22.8	18.4
37.5°	12.8	16.2	20.6	16.2	12.5	15.8	19.1	14.2	11.8
40°	7.7	9.9	14.7	9.9	7.4	9.6	13.2	8.8	7.0
42.5°	4.4	5.9	9.6	5.9	4.0	5.5	8.8	5.1	4.0
45°	2.2	3.2	5.9	3.2	2.2	3.2	5.5	2.9	2.2
47.5°	1.0	1.8	3.2	1.8	1.0	1.8	2.9	1.8	1.0
50°	0.3	0.7	1.8	0.7	0.3	0.7	1.8	0.7	0.7
52.5°	0.3	0.3	1.0	0.3	0.3	0.3	0.7	0.3	0.3
55°	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3
57.5°	0.3	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.3
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0

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CANDELA DISTRIBUTION (continued):

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

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

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