

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: P1212493

Luminaire Tested: **LDSQA6A25940D010TE 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: P1212493
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: LDSQA6A25940D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

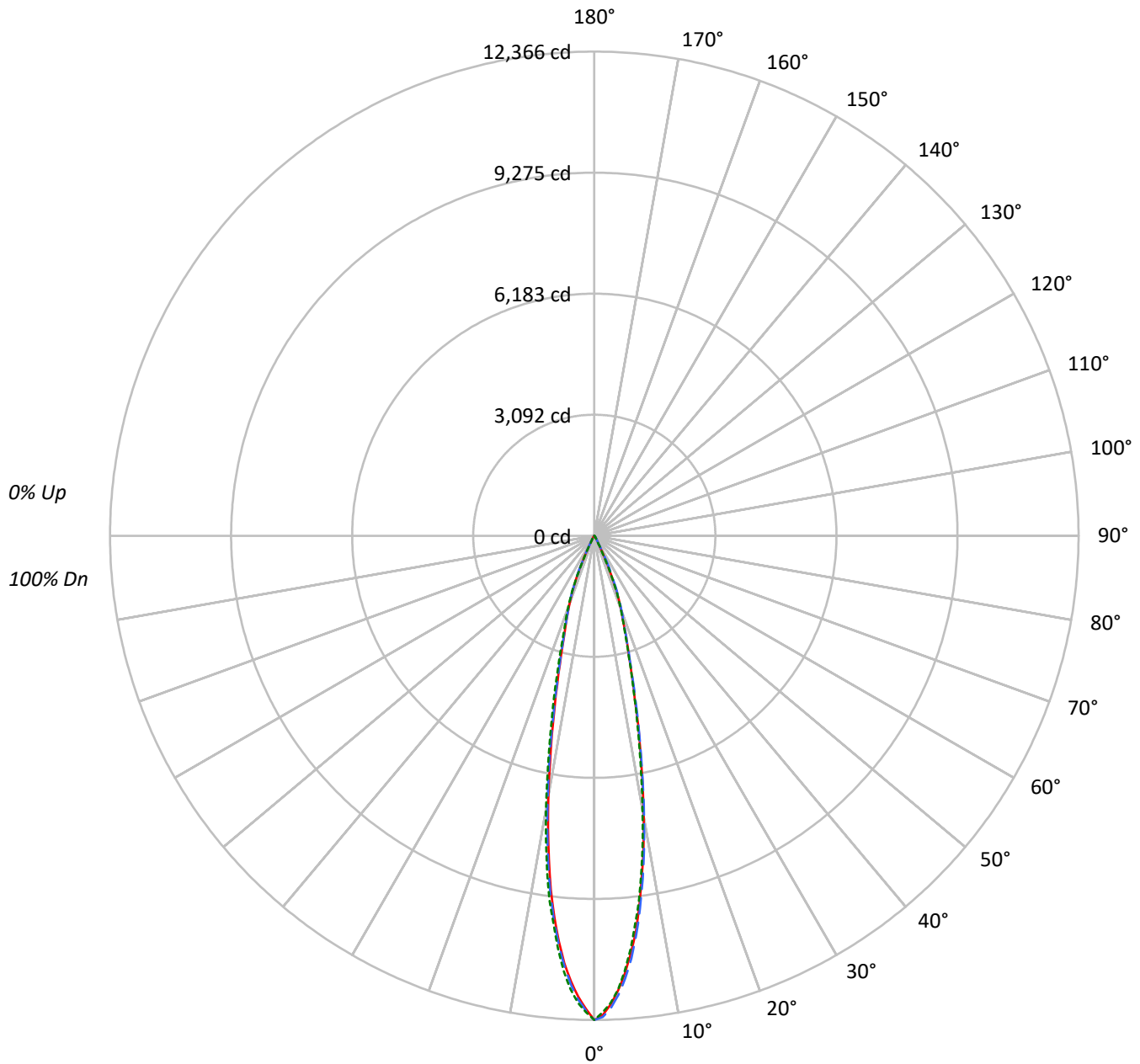
Lumens per Lamp: N/A
Luminaire Lumens: 2360.9 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	532435	532435	532435
5°	462715	457982	449718
10°	317887	310153	294615
15°	165545	164079	151125
20°	92050	90080	85219
25°	30457	28209	33098
30°	6747	6244	5568
35°	2523	2481	2218
40°	995	950	899
45°	311	311	311
50°	54	54	114
55°	60	0	60
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°	903.2	38.3
10°-20°	1046.9	44.3
20°-30°	363.8	15.4
30°-40°	38.7	1.6
40°-50°	7.4	0.3
50°-60°	0.7	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°	2313.9	98.0
0°-40°	2352.7	99.7
0°-60°	2360.9	100.0
0°-90°	2360.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2360.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12366	12366	12366	12366	12366	
5°	10706	10836	10596	10466	10405	910
15°	3714	3795	3681	3467	3390	1069
25°	641	833	594	728	697	347
35°	48	67	47	61	42	36
45°	5	13	5	13	5	5
55°	1	1	0	1	1	1
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	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	12366.2	12366.2	12366.2	12366.2	12366.2	12366.2	12366.2	12366.2	12366.2
1°	12252.5	12250.9	12294.7	12306.5	12173.4	12355.3	12138.8	12360.4	12093.3
2°	11977.0	11992.2	12067.2	12057.1	11940.9	12100.9	11846.6	12020.9	11780.9
3°	11627.5	11654.5	11741.2	11734.5	11598.9	11736.2	11466.6	11622.5	11396.8
4°	11199.7	11262.8	11335.2	11354.6	11148.2	11272.0	11010.1	11155.8	10941.0
5°	10706.0	10789.4	10835.8	10809.6	10596.5	10710.2	10465.9	10673.1	10405.3
6°	10148.4	10213.2	10247.8	10201.5	9965.6	10094.4	9866.2	10042.3	9780.3
7°	9484.6	9557.9	9585.7	9540.2	9376.8	9429.0	9200.8	9348.2	9103.1
8°	8747.5	8857.9	8862.2	8820.8	8651.5	8594.3	8463.7	8571.6	8339.1
9°	8024.0	8106.6	8104.9	8074.6	7887.6	7804.2	7677.0	7753.6	7547.4
10°	7271.0	7345.2	7319.9	7292.1	7094.1	7001.5	6879.3	6919.7	6738.7
11°	6473.4	6567.7	6527.2	6500.2	6303.1	6212.2	6090.1	6101.0	5941.8
12°	5667.3	5801.2	5753.2	5735.5	5553.5	5465.1	5354.7	5342.9	5192.2
13°	4990.8	5073.4	5026.2	5016.9	4856.9	4780.3	4602.5	4649.7	4512.4
14°	4268.9	4412.9	4370.9	4366.7	4235.3	4163.7	3999.4	4036.4	3916.8
15°	3713.9	3828.4	3794.8	3793.0	3681.0	3612.8	3467.0	3497.4	3390.4
16°	3208.5	3316.2	3291.9	3296.0	3196.7	3136.8	3010.5	3035.7	2949.8
17°	2856.3	2895.1	2872.4	2872.4	2789.8	2752.7	2644.0	2668.5	2601.1
18°	2506.0	2520.2	2534.6	2537.1	2464.6	2439.4	2348.4	2370.3	2314.7
19°	2218.7	2253.3	2261.7	2263.4	2199.3	2185.1	2106.7	2123.5	2078.0
20°	2009.0	2029.2	2031.7	2027.5	1966.0	1954.2	1884.3	1899.5	1859.9
21°	1766.4	1801.8	1794.2	1787.4	1723.4	1714.1	1655.2	1657.7	1619.0
22°	1496.0	1559.2	1550.8	1538.9	1452.2	1439.6	1424.4	1418.4	1381.5
23°	1164.9	1312.3	1304.7	1288.0	1161.6	1199.5	1190.2	1179.3	1144.7
24°	893.8	1067.2	1063.1	1036.9	869.3	963.6	953.5	944.3	917.3
25°	641.1	832.2	833.1	792.7	593.8	763.2	727.8	721.0	696.7
26°	458.2	619.1	623.4	565.2	364.7	550.9	525.6	516.3	497.0
27°	278.8	431.3	439.7	370.7	227.4	369.7	353.8	343.7	288.1
28°	192.1	281.3	291.4	229.2	177.7	246.8	227.4	215.6	167.6
29°	164.3	183.7	191.3	161.7	149.9	164.3	154.9	149.9	135.7
30°	135.7	139.8	143.2	133.9	125.6	129.7	125.6	121.3	112.0
32.5°	85.9	93.5	96.0	89.2	81.7	84.2	84.2	78.3	70.8
35°	48.0	59.8	67.4	58.9	47.2	56.4	60.6	52.3	42.2
37.5°	29.5	37.1	47.2	37.1	28.6	36.2	43.8	32.9	27.0
40°	17.7	22.7	33.6	22.7	16.9	21.9	30.3	20.2	16.0
42.5°	10.1	13.4	21.9	13.4	9.3	12.6	20.2	11.8	9.3
45°	5.1	7.6	13.4	7.6	5.1	7.6	12.6	6.8	5.1
47.5°	2.5	4.3	7.6	4.3	2.5	4.3	6.8	4.3	2.5
50°	0.8	1.7	4.3	1.7	0.8	1.7	4.3	1.7	1.7
52.5°	0.8	0.8	2.5	0.8	0.8	0.8	1.7	0.8	0.8
55°	0.8	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8
57.5°	0.8	0.0	0.8	0.0	0.0	0.0	0.8	0.8	0.8
60°	0.0	0.0	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°	0.0	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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