

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: P1219606

Luminaire Tested: **LDSQA6A25950D010TE 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: P1219606
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: LDSQA6A25950D010TE 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

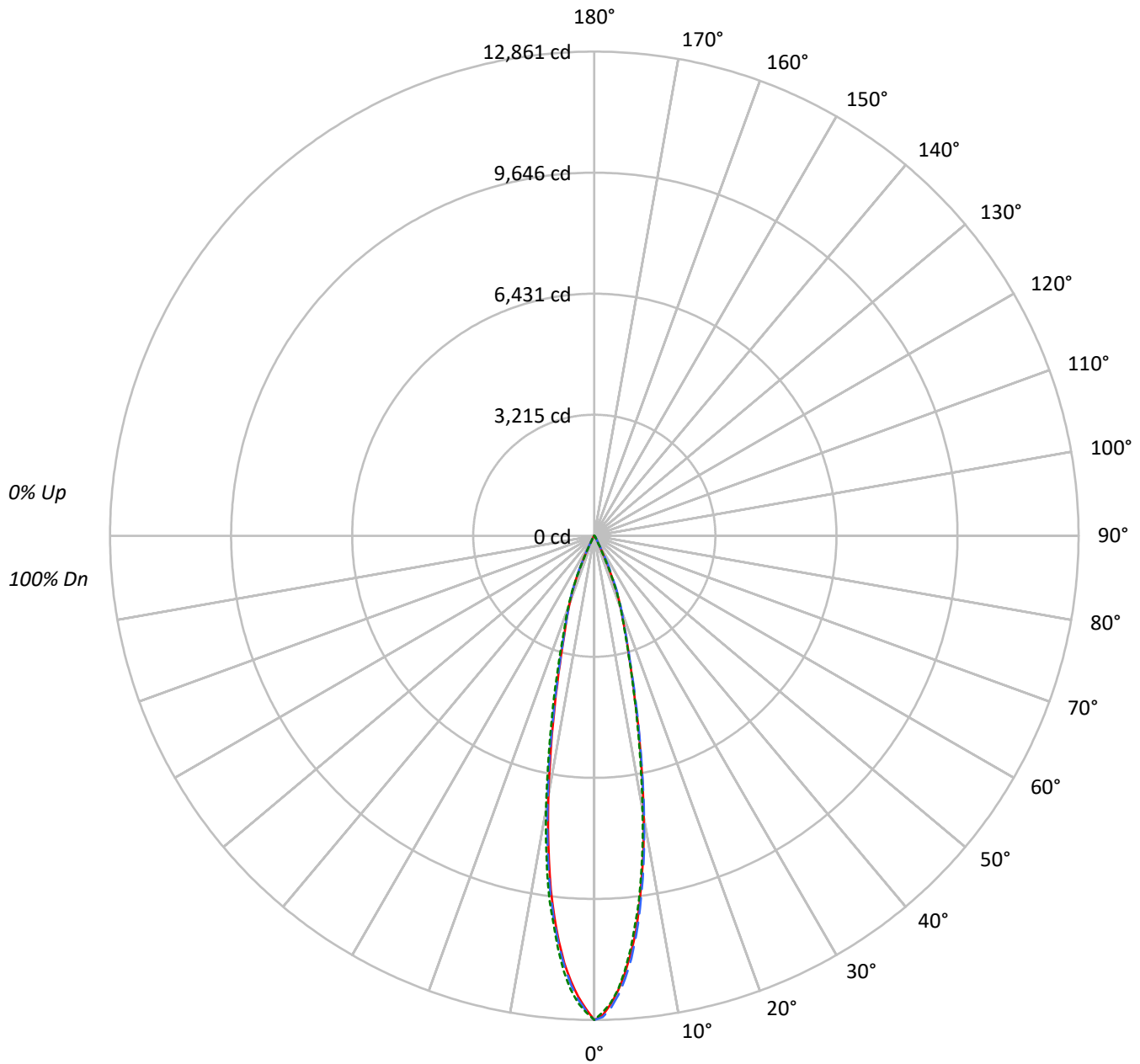
Lumens per Lamp: N/A
Luminaire Lumens: 2455.3 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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°	553730	553730	553730
5°	481222	476303	467707
10°	330601	322561	306398
15°	172169	170640	157170
20°	95734	93681	88627
25°	31673	29340	34423
30°	7015	6493	5792
35°	2623	2581	2307
40°	1034	989	933
45°	323	323	323
50°	54	54	121
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°	939.4	38.3
10°-20°	1088.8	44.3
20°-30°	378.4	15.4
30°-40°	40.3	1.6
40°-50°	7.7	0.3
50°-60°	0.8	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°	2406.5	98.0
0°-40°	2446.8	99.7
0°-60°	2455.3	100.0
0°-90°	2455.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2455.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12861	12861	12861	12861	12861	
5°	11134	11269	11020	10884	10822	946
15°	3862	3947	3828	3606	3526	1111
25°	667	866	618	757	725	361
35°	50	70	49	63	44	38
45°	5	14	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°	12860.8	12860.8	12860.8	12860.8	12860.8	12860.8	12860.8	12860.8	12860.8
1°	12742.6	12740.9	12786.5	12798.8	12660.3	12849.5	12624.4	12854.8	12577.0
2°	12456.1	12471.9	12549.9	12539.4	12418.5	12584.9	12320.5	12501.7	12252.1
3°	12092.6	12120.7	12210.8	12203.9	12062.9	12205.6	11925.3	12087.4	11852.7
4°	11647.7	11713.3	11788.6	11808.8	11594.1	11722.9	11450.5	11602.0	11378.6
5°	11134.2	11221.0	11269.2	11242.0	11020.4	11138.6	10884.5	11100.0	10821.5
6°	10554.3	10621.7	10657.7	10609.6	10364.2	10498.2	10260.8	10444.0	10171.5
7°	9864.0	9940.2	9969.1	9921.8	9751.9	9806.2	9568.8	9722.1	9467.2
8°	9097.4	9212.2	9216.7	9173.6	8997.6	8938.1	8802.2	8914.5	8672.7
9°	8345.0	8430.9	8429.1	8397.6	8203.1	8116.4	7984.1	8063.7	7849.3
10°	7561.8	7639.0	7612.7	7583.8	7377.9	7281.6	7154.5	7196.5	7008.2
11°	6732.3	6830.4	6788.3	6760.2	6555.2	6460.7	6333.7	6345.0	6179.5
12°	5894.0	6033.2	5983.3	5964.9	5775.6	5683.7	5568.9	5556.6	5399.9
13°	5190.4	5276.3	5227.2	5217.6	5051.2	4971.5	4786.6	4835.7	4692.9
14°	4439.7	4589.4	4545.7	4541.4	4404.7	4330.2	4159.4	4197.9	4073.5
15°	3862.5	3981.5	3946.6	3944.7	3828.2	3757.3	3605.7	3637.3	3526.0
16°	3336.8	3448.8	3423.6	3427.8	3324.6	3262.3	3130.9	3157.1	3067.8
17°	2970.6	3010.9	2987.3	2987.3	2901.4	2862.8	2749.8	2775.2	2705.1
18°	2606.2	2621.0	2636.0	2638.6	2563.2	2537.0	2442.3	2465.1	2407.3
19°	2307.4	2343.4	2352.2	2353.9	2287.3	2272.5	2191.0	2208.4	2161.1
20°	2089.4	2110.4	2113.0	2108.6	2044.6	2032.4	1959.7	1975.5	1934.3
21°	1837.1	1873.9	1866.0	1858.9	1792.3	1782.7	1721.4	1724.0	1683.8
22°	1555.8	1621.6	1612.8	1600.5	1510.3	1497.2	1481.4	1475.1	1436.8
23°	1211.5	1364.8	1356.9	1339.5	1208.1	1247.5	1237.8	1226.5	1190.5
24°	929.6	1109.9	1105.6	1078.4	904.1	1002.1	991.6	982.1	954.0
25°	666.7	865.5	866.4	824.4	617.6	793.7	756.9	749.8	724.6
26°	476.5	643.9	648.3	587.8	379.3	572.9	546.6	537.0	516.9
27°	290.0	448.6	457.3	385.5	236.5	384.5	368.0	357.4	299.6
28°	199.8	292.6	303.1	238.4	184.8	256.7	236.5	224.2	174.3
29°	170.9	191.0	199.0	168.2	155.9	170.9	161.1	155.9	141.1
30°	141.1	145.4	148.9	139.3	130.6	134.9	130.6	126.2	116.5
32.5°	89.3	97.2	99.8	92.8	85.0	87.6	87.6	81.4	73.6
35°	49.9	62.2	70.1	61.3	49.1	58.7	63.0	54.4	43.9
37.5°	30.7	38.6	49.1	38.6	29.7	37.6	45.6	34.2	28.1
40°	18.4	23.6	34.9	23.6	17.6	22.8	31.5	21.0	16.6
42.5°	10.5	13.9	22.8	13.9	9.7	13.1	21.0	12.3	9.7
45°	5.3	7.9	13.9	7.9	5.3	7.9	13.1	7.1	5.3
47.5°	2.6	4.5	7.9	4.5	2.6	4.5	7.1	4.5	2.6
50°	0.8	1.8	4.5	1.8	0.8	1.8	4.5	1.8	1.8
52.5°	0.8	0.8	2.6	0.8	0.8	0.8	1.8	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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