

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: P1212529

Luminaire Tested: **LDSQA6A35930D010TE 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: P1212529
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: LDSQA6A35930D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

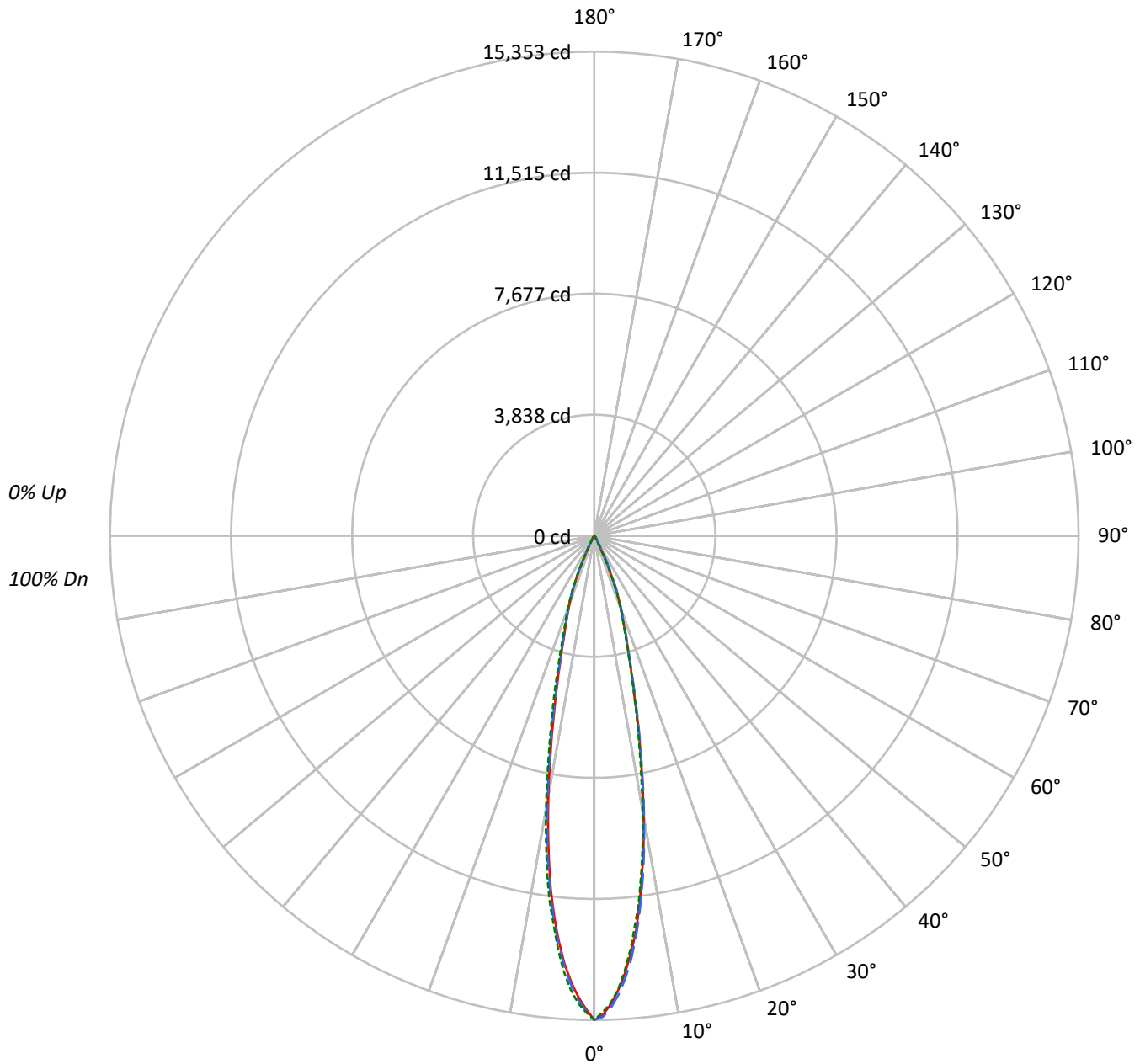
Lumens per Lamp: N/A
Luminaire Lumens: 2931.1 lumens
Efficiency: N/A
Efficacy: 61.4 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 47.7
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					10
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		
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97		
2	112	108	105	103	110	107	104	102	103	101	100	101	99	97	98	97	95	94		
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91		
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89		
5	102	97	93	90	101	96	92	89	94	91	89	93	90	88	91	89	87	86		
6	99	94	90	87	98	93	89	86	92	88	86	90	88	85	89	87	85	84		
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	85	83	82		
8	94	88	84	82	93	88	84	81	87	83	81	86	83	81	85	82	80	80		
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78		
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	81	79	77	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	661038	661038	661038
5°	574478	568595	558344
10°	394668	385067	365769
15°	205529	203705	187627
20°	114286	111835	105796
25°	37806	35027	41089
30°	8367	7751	6916
35°	3133	3075	2744
40°	1237	1175	1113
45°	384	384	384
50°	74	74	147
55°	83	0	83
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°	1121.4	38.3
10°-20°	1299.8	44.3
20°-30°	451.7	15.4
30°-40°	48.1	1.6
40°-50°	9.2	0.3
50°-60°	1.0	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°	2872.8	98.0
0°-40°	2920.9	99.7
0°-60°	2931.1	100.0
0°-90°	2931.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2931.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15353	15353	15353	15353	15353	
5°	13292	13453	13156	12994	12919	1130
15°	4611	4711	4570	4304	4209	1327
25°	796	1034	737	904	865	431
35°	60	84	58	75	52	45
45°	6	17	6	16	6	6
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°	15353.1	15353.1	15353.1	15353.1	15353.1	15353.1	15353.1	15353.1	15353.1
1°	15212.0	15209.8	15264.2	15278.9	15113.7	15339.6	15070.7	15345.7	15014.3
2°	14870.0	14888.7	14981.9	14969.3	14825.0	15023.7	14707.8	14924.3	14626.3
3°	14436.0	14469.5	14577.1	14568.8	14400.4	14570.8	14236.2	14429.7	14149.4
4°	13904.6	13983.1	14073.1	14097.1	13840.9	13994.6	13669.4	13850.3	13583.7
5°	13291.9	13395.4	13453.0	13420.4	13155.8	13297.1	12993.8	13251.1	12918.6
6°	12599.6	12680.1	12722.9	12665.5	12372.7	12532.7	12249.2	12467.9	12142.6
7°	11775.4	11866.5	11901.1	11844.5	11641.7	11706.5	11423.0	11606.0	11301.8
8°	10860.5	10997.5	11002.7	10951.4	10741.1	10670.0	10508.0	10642.0	10353.2
9°	9962.1	10064.5	10062.5	10024.9	9792.7	9689.2	9531.2	9626.4	9370.3
10°	9027.2	9119.2	9087.8	9053.3	8807.6	8692.6	8540.8	8591.0	8366.2
11°	8036.8	8154.0	8103.8	8070.3	7825.5	7712.6	7561.1	7574.6	7376.9
12°	7036.0	7202.3	7142.8	7120.8	6894.9	6785.1	6648.1	6633.4	6446.2
13°	6196.3	6298.7	6240.2	6228.7	6030.0	5934.8	5714.1	5772.8	5602.3
14°	5300.1	5478.8	5426.6	5421.4	5258.2	5169.2	4965.3	5011.4	4862.9
15°	4610.9	4753.1	4711.3	4709.2	4570.0	4485.4	4304.5	4342.1	4209.3
16°	3983.4	4117.3	4086.9	4092.1	3968.8	3894.5	3737.7	3769.0	3662.3
17°	3546.2	3594.4	3566.2	3566.2	3463.6	3417.7	3282.7	3313.1	3229.4
18°	3111.1	3128.9	3146.8	3149.8	3060.0	3028.5	2915.6	2942.8	2873.9
19°	2754.5	2797.4	2808.0	2810.0	2730.6	2712.8	2615.6	2636.5	2579.9
20°	2494.3	2519.3	2522.3	2517.1	2440.8	2426.2	2339.5	2358.2	2309.0
21°	2192.9	2236.9	2227.5	2219.2	2139.7	2128.1	2054.9	2058.1	2010.1
22°	1857.2	1935.7	1925.3	1910.7	1802.9	1787.2	1768.5	1761.1	1715.0
23°	1446.3	1629.4	1620.0	1598.9	1442.2	1489.1	1477.6	1464.1	1421.3
24°	1109.5	1325.0	1319.8	1287.4	1079.3	1196.5	1183.9	1172.3	1138.9
25°	795.8	1033.2	1034.3	984.1	737.3	947.5	903.6	895.1	864.9
26°	569.0	768.6	773.8	701.6	452.9	684.0	652.5	641.0	617.0
27°	346.1	535.5	545.9	460.1	282.4	459.2	439.2	426.6	357.7
28°	238.5	349.4	361.8	284.4	220.7	306.4	282.4	267.7	208.1
29°	203.9	228.1	237.4	200.9	186.1	203.9	192.4	186.1	168.3
30°	168.3	173.5	177.8	166.3	155.9	161.1	155.9	150.7	139.1
32.5°	106.7	116.1	119.2	110.9	101.5	104.6	104.6	97.2	87.8
35°	59.6	74.3	83.7	73.3	58.5	70.0	75.2	64.8	52.2
37.5°	36.5	46.1	58.5	46.1	35.6	45.0	54.4	40.9	33.5
40°	22.0	28.3	41.8	28.3	20.9	27.2	37.6	25.0	19.8
42.5°	12.6	16.7	27.2	16.7	11.5	15.7	25.0	14.6	11.5
45°	6.3	9.4	16.7	9.4	6.3	9.4	15.7	8.3	6.3
47.5°	3.1	5.2	9.4	5.2	3.1	5.2	8.3	5.2	3.1
50°	1.1	2.2	5.2	2.2	1.1	2.2	5.2	2.2	2.2
52.5°	1.1	1.1	3.1	1.1	1.1	1.1	2.2	1.1	1.1
55°	1.1	1.1	1.1	1.1	0.0	1.1	1.1	1.1	1.1
57.5°	1.1	0.0	1.1	0.0	0.0	0.0	1.1	1.1	1.1
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0

Classified

Scaled Data Report

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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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