

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: P208779

Luminaire Tested: **LDSQA6A30940D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208779
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: LDSQA6A30940D010TE 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: 2469.7 lumens
Efficiency: N/A
Efficacy: 55.3 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

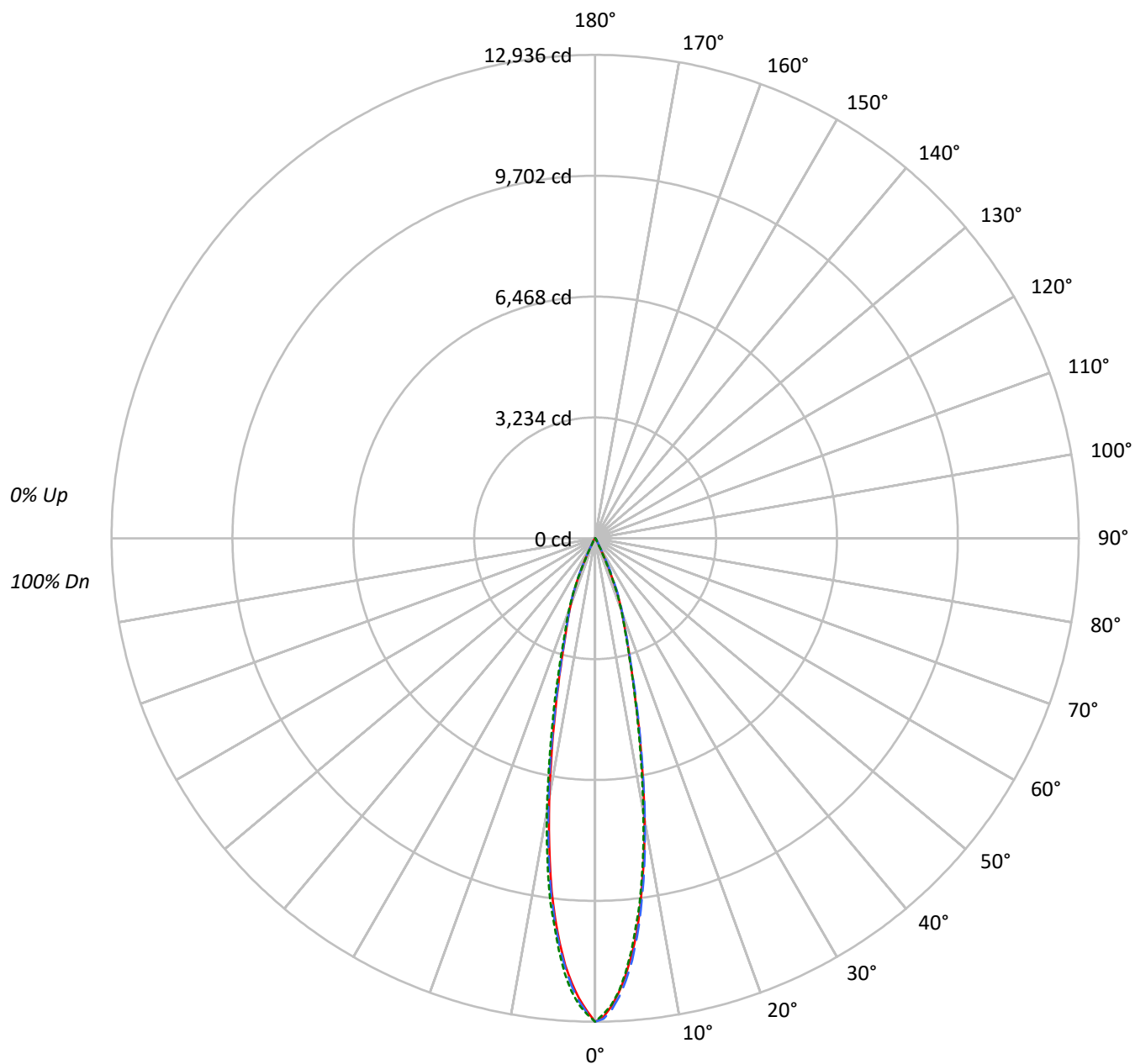
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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			
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°	556981	556981	556981
5°	484044	479095	470447
10°	332538	324449	308194
15°	173172	171643	158092
20°	96293	94231	89145
25°	31858	29511	34618
30°	7055	6528	5827
35°	2639	2591	2318
40°	1040	989	939
45°	323	323	323
50°	60	60	121
55°	68	0	68
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°	944.9	38.3
10°-20°	1095.2	44.3
20°-30°	380.6	15.4
30°-40°	40.5	1.6
40°-50°	7.8	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°	2420.6	98.0
0°-40°	2461.1	99.7
0°-60°	2469.7	100.0
0°-90°	2469.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2469.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12936	12936	12936	12936	12936	
5°	11200	11335	11085	10948	10885	952
15°	3885	3970	3851	3627	3547	1118
25°	671	872	621	761	729	363
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°	12936.3	12936.3	12936.3	12936.3	12936.3	12936.3	12936.3	12936.3	12936.3
1°	12817.3	12815.5	12861.4	12873.7	12734.5	12924.8	12698.4	12930.1	12650.8
2°	12529.2	12545.0	12623.5	12612.9	12491.3	12658.7	12392.6	12575.0	12323.9
3°	12163.5	12191.7	12282.4	12275.4	12133.5	12277.2	11995.2	12158.2	11922.1
4°	11715.9	11781.9	11857.7	11878.0	11662.1	11791.6	11517.6	11670.0	11445.3
5°	11199.5	11286.7	11335.2	11307.9	11085.0	11203.9	10948.4	11165.1	10884.9
6°	10616.2	10684.0	10720.2	10671.7	10425.0	10559.8	10321.0	10505.2	10231.1
7°	9921.8	9998.5	10027.6	9980.0	9809.0	9863.7	9624.9	9779.1	9522.7
8°	9150.8	9266.2	9270.7	9227.5	9050.4	8990.4	8853.9	8966.7	8723.5
9°	8393.9	8480.3	8478.5	8446.8	8251.2	8163.9	8030.9	8111.0	7895.2
10°	7606.1	7683.7	7657.3	7628.2	7421.1	7324.2	7196.4	7238.7	7049.3
11°	6771.7	6870.4	6828.1	6799.9	6593.7	6498.5	6370.8	6382.2	6215.7
12°	5928.4	6068.5	6018.3	5999.8	5809.5	5716.9	5601.5	5589.2	5431.5
13°	5220.9	5307.2	5257.9	5248.2	5080.8	5000.6	4814.6	4864.0	4720.4
14°	4465.7	4616.4	4572.3	4567.9	4430.5	4355.6	4183.7	4222.5	4097.4
15°	3885.0	4004.9	3969.6	3967.8	3850.7	3779.3	3626.8	3658.6	3546.7
16°	3356.3	3469.1	3443.6	3448.0	3344.0	3281.4	3149.3	3175.7	3085.8
17°	2988.0	3028.5	3004.7	3004.7	2918.4	2879.6	2766.0	2791.5	2721.0
18°	2621.4	2636.4	2651.4	2654.0	2578.3	2551.8	2456.7	2479.6	2421.4
19°	2321.0	2357.1	2365.9	2367.7	2300.7	2285.7	2203.8	2221.4	2173.8
20°	2101.6	2122.7	2125.4	2120.9	2056.6	2044.3	1971.1	1987.0	1945.6
21°	1847.8	1884.8	1876.9	1869.8	1802.8	1793.2	1731.5	1734.1	1693.6
22°	1564.9	1631.0	1622.2	1609.9	1519.1	1505.9	1490.0	1483.9	1445.1
23°	1218.6	1372.8	1364.9	1347.3	1215.1	1254.8	1245.1	1233.6	1197.5
24°	934.9	1116.4	1112.0	1084.7	909.4	1008.0	997.5	987.8	959.6
25°	670.6	870.6	871.5	829.2	621.2	798.3	761.3	754.3	728.7
26°	479.3	647.7	652.1	591.3	381.5	576.3	549.8	540.1	519.9
27°	291.7	451.2	460.0	387.7	237.9	386.8	370.1	359.5	301.4
28°	200.9	294.3	304.9	239.7	185.9	258.2	237.9	225.6	175.4
29°	171.8	192.1	200.0	169.2	156.8	171.8	162.1	156.8	141.9
30°	141.9	146.3	149.8	140.1	131.3	135.7	131.3	126.9	117.2
32.5°	89.9	97.8	100.5	93.4	85.5	88.1	88.1	81.9	74.0
35°	50.2	62.6	70.5	61.7	49.3	59.0	63.4	54.6	44.1
37.5°	30.8	38.8	49.3	38.8	30.0	37.9	45.8	34.4	28.2
40°	18.5	23.8	35.2	23.8	17.6	22.9	31.7	21.1	16.7
42.5°	10.6	14.1	22.9	14.1	9.7	13.2	21.1	12.3	9.7
45°	5.3	7.9	14.1	7.9	5.3	7.9	13.2	7.0	5.3
47.5°	2.6	4.4	7.9	4.4	2.6	4.4	7.0	4.4	2.6
50°	0.9	1.8	4.4	1.8	0.9	1.8	4.4	1.8	1.8
52.5°	0.9	0.9	2.6	0.9	0.9	0.9	1.8	0.9	0.9
55°	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.9	0.9
57.5°	0.9	0.0	0.9	0.0	0.0	0.0	0.9	0.9	0.9
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	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°







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



(END OF REPORT)