

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: P208732

Luminaire Tested: **LDSQA6A20827D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29053)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A20827D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1668.7 lumens
Efficiency: N/A
Efficacy: 57.9 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.36
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

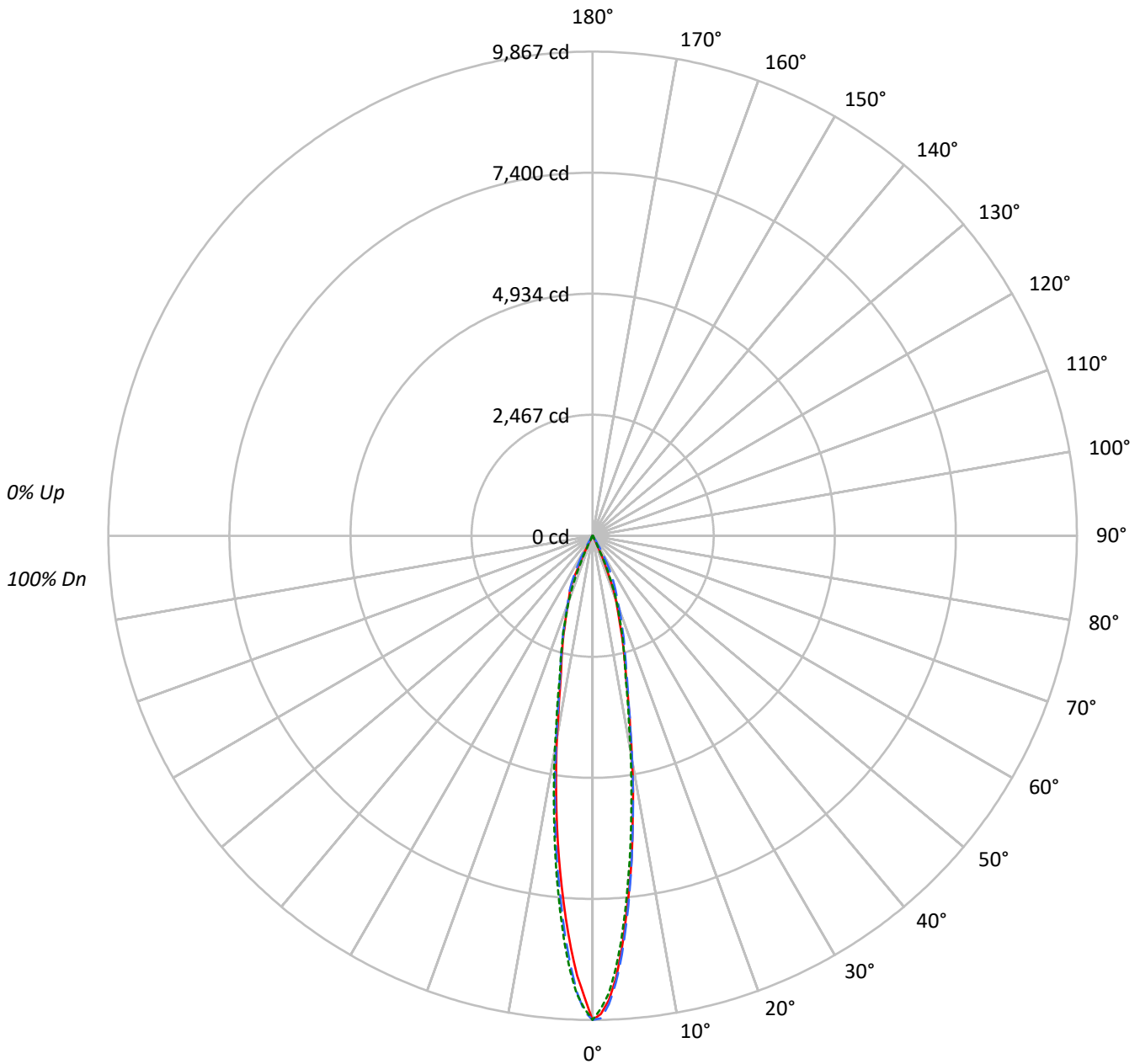
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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				100															
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	99	97																
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	94	95	94																
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	92	92	91																
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	90	90	88																
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	87	87	86																
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	85	84	83																
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	83	82	81																
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	80	80	79																
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	78	78	77																
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	76	76	75																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	424813	424813	424813
5°	337718	330509	310926
10°	201212	193801	182334
15°	109943	110126	106671
20°	62987	64733	66538
25°	16632	17288	31060
30°	2272	2098	2028
35°	909	873	836
40°	348	348	348
45°	170	128	170
50°	94	47	141
55°	53	0	105
60°	60	0	0
65°	71	0	0
70°	88	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°	626.6	37.5
10°-20°	705.1	42.3
20°-30°	314.0	18.8
30°-40°	19.1	1.1
40°-50°	3.1	0.2
50°-60°	0.6	0.0
60°-70°	0.2	0.0
70°-80°	0.1	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°	1645.7	98.6
0°-40°	1664.8	99.8
0°-60°	1668.5	100.0
0°-90°	1668.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1668.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9867	9867	9867	9867	9867	
5°	7814	7905	7647	7468	7194	642
15°	2466	2574	2471	2453	2393	695
25°	350	935	364	904	654	206
35°	17	28	17	28	16	13
45°	3	5	2	5	3	2
55°	1	1	0	1	1	1
65°	1	0	0	0	0	1
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°	9866.6	9866.6	9866.6	9866.6	9866.6	9866.6	9866.6	9866.6	9866.6
1°	9745.6	9834.8	9834.8	9813.4	9635.5	9767.7	9693.0	9612.7	9403.8
2°	9465.3	9556.0	9547.0	9465.3	9336.7	9391.3	9288.9	9189.3	8970.0
3°	9032.9	9130.5	9112.5	9027.4	8855.8	8889.0	8742.4	8666.9	8415.1
4°	8451.8	8575.6	8554.2	8460.1	8287.8	8285.7	8132.1	8052.6	7819.4
5°	7813.9	7943.3	7905.2	7827.7	7647.1	7614.6	7467.9	7411.2	7194.0
6°	7200.9	7281.8	7242.4	7178.1	6983.0	6962.9	6823.8	6775.4	6574.8
7°	6547.8	6603.8	6565.1	6515.3	6318.1	6291.8	6178.3	6140.3	5944.5
8°	5859.4	5939.6	5884.3	5853.1	5667.0	5631.1	5516.9	5491.3	5334.2
9°	5271.3	5298.3	5239.5	5146.1	5038.1	5001.5	4880.4	4855.5	4745.5
10°	4602.3	4686.0	4640.3	4560.1	4432.8	4460.4	4284.7	4263.9	4170.5
11°	4020.4	4108.3	4059.8	3987.9	3873.0	3888.9	3745.0	3657.9	3643.3
12°	3540.3	3580.4	3565.9	3507.7	3415.0	3419.9	3291.9	3222.0	3207.5
13°	3072.6	3144.5	3151.4	3103.7	2992.3	3043.5	2948.0	2891.3	2868.5
14°	2755.7	2810.3	2832.5	2831.1	2710.7	2755.7	2680.3	2634.6	2611.8
15°	2466.5	2537.7	2573.7	2571.6	2470.6	2516.3	2453.3	2417.4	2393.1
16°	2195.3	2292.8	2351.6	2341.9	2247.9	2294.9	2232.6	2197.3	2170.4
17°	1922.7	2056.9	2143.4	2124.7	2026.5	2086.0	2026.5	1996.0	1967.7
18°	1713.0	1823.1	1944.8	1904.7	1795.4	1888.1	1836.9	1812.7	1786.4
19°	1524.9	1600.3	1758.7	1687.4	1588.5	1693.7	1655.6	1636.3	1611.3
20°	1374.7	1439.8	1580.9	1496.5	1412.8	1498.6	1488.2	1473.0	1452.2
21°	1182.4	1306.2	1419.7	1341.5	1231.5	1352.6	1365.7	1357.4	1342.2
22°	936.1	1158.9	1302.8	1160.3	1016.3	1246.0	1273.0	1266.8	1255.7
23°	728.5	985.2	1194.8	993.5	791.5	1127.7	1167.9	1163.7	1127.0
24°	531.3	806.7	1059.2	797.7	569.4	966.5	1043.3	1036.4	903.6
25°	350.1	628.2	935.4	598.5	363.9	781.8	903.6	891.8	653.8
26°	224.9	459.4	824.0	408.9	193.7	583.9	755.5	722.3	405.4
27°	107.9	320.3	687.7	240.8	94.1	389.5	606.1	532.0	195.8
28°	67.8	168.1	546.6	119.7	63.7	216.6	464.2	337.6	76.8
29°	55.3	83.0	404.7	67.8	51.9	99.6	332.8	164.7	53.3
30°	45.7	55.3	276.1	51.9	42.2	55.3	218.6	64.3	40.8
32.5°	29.1	34.6	63.7	32.5	27.7	31.8	51.9	31.1	25.6
35°	17.3	22.1	27.7	21.4	16.6	20.8	28.4	20.1	15.9
37.5°	10.4	13.1	18.0	13.1	10.4	13.1	18.0	13.1	9.7
40°	6.2	8.3	12.5	8.3	6.2	8.3	12.5	8.3	6.2
42.5°	4.2	4.8	8.3	4.8	3.5	4.8	8.3	5.5	4.2
45°	2.8	3.5	4.8	2.8	2.1	2.8	4.8	3.5	2.8
47.5°	2.1	2.1	2.8	1.4	1.4	2.1	3.5	2.8	2.1
50°	1.4	1.4	2.1	0.7	0.7	0.7	2.1	2.1	2.1
52.5°	0.7	0.7	0.7	0.0	0.0	0.0	1.4	1.4	1.4
55°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	1.4	1.4
57.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	1.4	1.4
60°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	1.4	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.7	0.7	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°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)