

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: P208722

Luminaire Tested: **LDSQA6A10935D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208722
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: LDSQA6A10935D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 780.6 lumens
Efficiency: N/A
Efficacy: 56.9 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

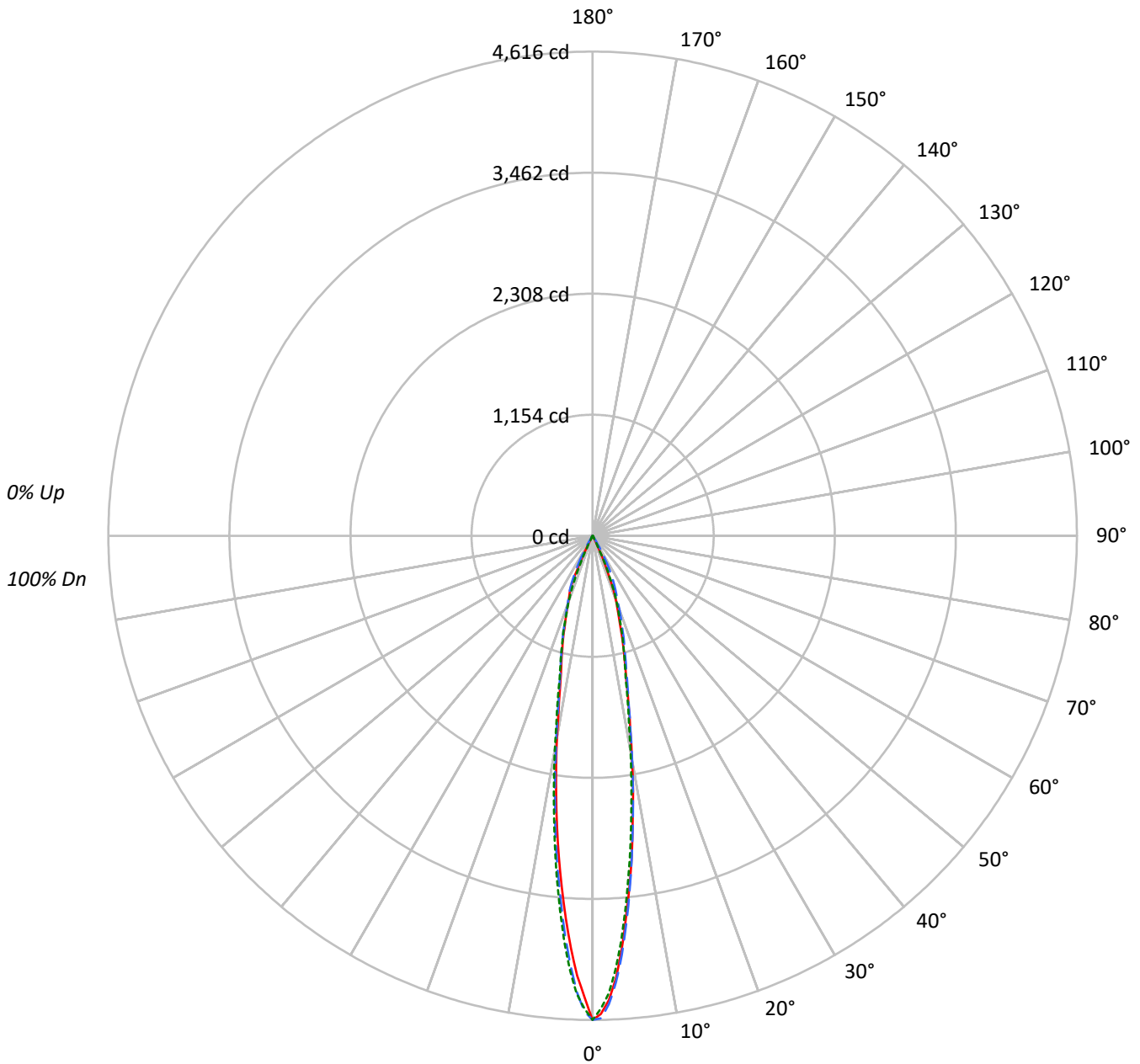
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	97	97																
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	94	94	94																
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	91	91	91																
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	88	88	88																
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	86	86	86																
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	83	83	83																
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81	81																
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	79	79	79																
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	77	77	77																
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	75	75	75																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	198732	198732	198732
5°	157987	154616	145453
10°	94129	90662	85297
15°	51430	51519	49901
20°	29466	30282	31129
25°	7782	8086	14532
30°	1064	979	950
35°	426	410	389
40°	163	163	163
45°	79	61	79
50°	40	20	67
55°	23	0	45
60°	26	0	0
65°	31	0	0
70°	38	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°	293.1	37.6
10°-20°	329.9	42.3
20°-30°	146.9	18.8
30°-40°	9.0	1.1
40°-50°	1.4	0.2
50°-60°	0.2	0.0
60°-70°	0.1	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°	769.9	98.6
0°-40°	778.8	99.8
0°-60°	780.5	100.0
0°-90°	780.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	780.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4616	4616	4616	4616	4616	
5°	3655	3698	3577	3494	3365	300
15°	1154	1204	1156	1148	1120	325
25°	164	438	170	423	306	97
35°	8	13	8	13	7	6
45°	1	2	1	2	1	1
55°	0	0	0	0	1	0
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	4615.7	4615.7	4615.7	4615.7	4615.7	4615.7	4615.7	4615.7	4615.7
1°	4559.1	4600.8	4600.8	4590.8	4507.6	4569.4	4534.5	4496.9	4399.2
2°	4428.0	4470.4	4466.2	4428.0	4367.8	4393.4	4345.5	4298.9	4196.3
3°	4225.7	4271.3	4262.9	4223.1	4142.9	4158.4	4089.8	4054.5	3936.7
4°	3953.8	4011.8	4001.7	3957.7	3877.1	3876.2	3804.3	3767.1	3658.0
5°	3655.4	3715.9	3698.1	3661.9	3577.4	3562.2	3493.6	3467.1	3365.4
6°	3368.7	3406.5	3388.1	3358.0	3266.7	3257.3	3192.3	3169.6	3075.7
7°	3063.1	3089.3	3071.2	3047.9	2955.7	2943.4	2890.3	2872.5	2780.9
8°	2741.1	2778.6	2752.7	2738.2	2651.1	2634.3	2580.9	2568.9	2495.4
9°	2466.0	2478.6	2451.1	2407.4	2356.9	2339.7	2283.1	2271.4	2220.0
10°	2153.0	2192.2	2170.8	2133.2	2073.7	2086.6	2004.4	1994.7	1951.0
11°	1880.8	1921.9	1899.2	1865.6	1811.9	1819.3	1752.0	1711.2	1704.4
12°	1656.2	1674.9	1668.1	1641.0	1597.6	1599.9	1540.0	1507.3	1500.5
13°	1437.4	1471.0	1474.3	1451.9	1399.8	1423.8	1379.1	1352.6	1341.9
14°	1289.1	1314.7	1325.1	1324.4	1268.1	1289.1	1253.9	1232.5	1221.8
15°	1153.8	1187.2	1204.0	1203.0	1155.8	1177.2	1147.7	1130.9	1119.5
16°	1027.0	1072.6	1100.1	1095.6	1051.6	1073.6	1044.5	1027.9	1015.3
17°	899.5	962.2	1002.7	994.0	948.0	975.8	948.0	933.8	920.5
18°	801.4	852.8	909.8	891.0	839.9	883.3	859.3	848.0	835.7
19°	713.3	748.6	822.7	789.4	743.1	792.3	774.5	765.5	753.8
20°	643.1	673.5	739.6	700.1	660.9	701.0	696.2	689.1	679.4
21°	553.1	611.1	664.2	627.6	576.1	632.8	638.9	635.0	627.9
22°	437.9	542.1	609.5	542.8	475.5	582.9	595.5	592.6	587.4
23°	340.8	460.9	559.0	464.8	370.3	527.6	546.3	544.4	527.2
24°	248.6	377.4	495.5	373.2	266.4	452.2	488.1	484.8	422.7
25°	163.8	293.9	437.6	280.0	170.2	365.7	422.7	417.2	305.9
26°	105.2	214.9	385.5	191.3	90.6	273.2	353.4	337.9	189.7
27°	50.5	149.9	321.7	112.6	44.0	182.2	283.5	248.9	91.6
28°	31.7	78.6	255.7	56.0	29.8	101.3	217.2	157.9	35.9
29°	25.9	38.8	189.3	31.7	24.3	46.6	155.7	77.0	24.9
30°	21.4	25.9	129.1	24.3	19.7	25.9	102.3	30.1	19.1
32.5°	13.6	16.2	29.8	15.2	12.9	14.9	24.3	14.6	12.0
35°	8.1	10.4	12.9	10.0	7.8	9.7	13.3	9.4	7.4
37.5°	4.9	6.1	8.4	6.1	4.9	6.1	8.4	6.1	4.5
40°	2.9	3.9	5.8	3.9	2.9	3.9	5.8	3.9	2.9
42.5°	1.9	2.3	3.9	2.3	1.6	2.3	3.9	2.6	1.9
45°	1.3	1.6	2.3	1.3	1.0	1.3	2.3	1.6	1.3
47.5°	1.0	1.0	1.3	0.6	0.6	1.0	1.6	1.3	1.0
50°	0.6	0.6	1.0	0.3	0.3	0.3	1.0	1.0	1.0
52.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.6	0.6	0.6
55°	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.6	0.6
57.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.6
60°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.3	0.3	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°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)