

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: P208761

Luminaire Tested: **LDSQA6A15930D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208761
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: LDSQA6A15930D010TE 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: 1344.2 lumens
Efficiency: N/A
Efficacy: 61.7 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

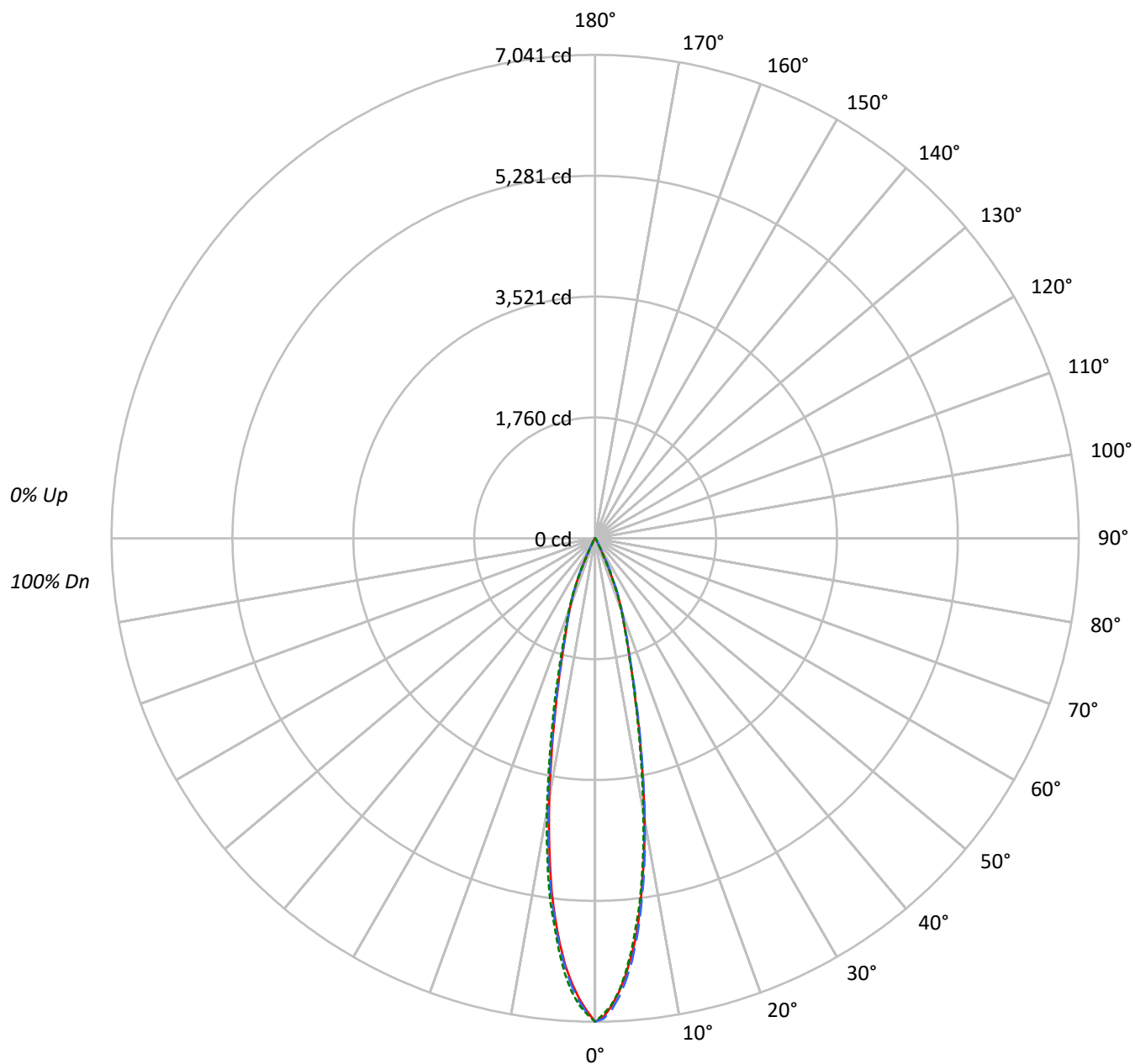
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	115	113	111	110		113	111	109	108		107	106	105		103	102	102		100	99	99
2	112	108	105	103		110	107	104	102		103	101	100		101	99	97		98	97	95
3	108	104	100	98		107	103	99	97		100	98	95		98	96	94		96	94	93
4	105	100	96	93		104	99	96	93		97	94	92		95	93	91		94	92	90
5	102	97	93	90		101	96	92	89		94	91	89		93	90	88		91	89	87
6	99	94	90	87		98	93	89	86		92	88	86		90	88	85		89	87	85
7	97	91	87	84		96	90	86	84		89	86	83		88	85	83		87	85	83
8	94	88	84	82		93	88	84	81		87	83	81		86	83	81		85	82	80
9	92	86	82	79		91	85	82	79		85	81	79		84	81	79		83	80	78
10	90	84	80	77		89	83	80	77		83	79	77		82	79	77		81	79	77

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	303142	303142	303142
5°	263444	260751	256045
10°	180987	176585	167736
15°	94253	93415	86042
20°	52408	51285	48518
25°	17340	16062	18841
30°	3838	3555	3172
35°	1435	1414	1261
40°	568	540	511
45°	177	177	177
50°	33	33	67
55°	38	0	38
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°	514.2	38.3
10°-20°	596.0	44.3
20°-30°	207.1	15.4
30°-40°	22.1	1.6
40°-50°	4.2	0.3
50°-60°	0.4	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°	1317.4	98.0
0°-40°	1339.5	99.7
0°-60°	1344.2	100.0
0°-90°	1344.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1344.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7041	7041	7041	7041	7041	
5°	6095	6169	6033	5959	5924	518
15°	2114	2160	2096	1974	1930	608
25°	365	474	338	414	397	198
35°	27	38	27	34	24	21
45°	3	8	3	7	3	3
55°	0	0	0	0	0	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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	7040.7	7040.7	7040.7	7040.7	7040.7	7040.7	7040.7	7040.7	7040.7
1°	6975.9	6975.0	6999.9	7006.6	6930.8	7034.4	6911.2	7037.3	6885.3
2°	6819.1	6827.7	6870.4	6864.7	6798.5	6889.6	6744.8	6844.0	6707.4
3°	6620.1	6635.4	6684.8	6681.0	6603.8	6681.9	6528.5	6617.2	6488.7
4°	6376.4	6412.4	6453.7	6464.7	6347.2	6417.7	6268.5	6351.5	6229.2
5°	6095.4	6142.9	6169.3	6154.4	6033.1	6097.8	5958.7	6076.7	5924.2
6°	5777.9	5814.9	5834.5	5808.2	5673.9	5747.2	5617.3	5717.5	5568.4
7°	5400.0	5441.8	5457.6	5431.7	5338.6	5368.4	5238.4	5322.3	5182.8
8°	4980.4	5043.2	5045.6	5022.1	4925.7	4893.1	4818.8	4880.2	4747.8
9°	4568.4	4615.4	4614.5	4597.2	4490.8	4443.3	4370.9	4414.5	4297.0
10°	4139.7	4181.9	4167.5	4151.7	4039.0	3986.2	3916.7	3939.7	3836.6
11°	3685.5	3739.3	3716.2	3700.9	3588.7	3536.9	3467.3	3473.6	3382.9
12°	3226.6	3302.8	3275.5	3265.4	3161.8	3111.5	3048.7	3042.0	2956.1
13°	2841.5	2888.5	2861.6	2856.4	2765.2	2721.6	2620.4	2647.3	2569.1
14°	2430.5	2512.5	2488.5	2486.1	2411.3	2370.5	2277.0	2298.1	2230.0
15°	2114.5	2179.7	2160.5	2159.5	2095.7	2056.9	1973.9	1991.2	1930.3
16°	1826.7	1888.1	1874.2	1876.6	1820.0	1785.9	1714.0	1728.4	1679.5
17°	1626.2	1648.3	1635.4	1635.4	1588.4	1567.3	1505.4	1519.3	1480.9
18°	1426.7	1434.9	1443.0	1444.5	1403.2	1388.9	1337.1	1349.5	1317.9
19°	1263.2	1282.9	1287.7	1288.6	1252.2	1244.0	1199.4	1209.0	1183.1
20°	1143.8	1155.3	1156.7	1154.3	1119.3	1112.6	1072.8	1081.4	1058.9
21°	1005.7	1025.8	1021.5	1017.7	981.2	975.9	942.4	943.8	921.7
22°	851.7	887.7	882.9	876.2	826.8	819.6	811.0	807.6	786.5
23°	663.3	747.2	742.9	733.3	661.3	682.9	677.6	671.4	651.7
24°	508.8	607.6	605.2	590.4	494.9	548.6	542.9	537.6	522.3
25°	365.0	473.8	474.3	451.3	338.1	434.5	414.4	410.5	396.6
26°	260.9	352.5	354.9	321.8	207.7	313.6	299.3	294.0	283.0
27°	158.7	245.5	250.3	211.0	129.5	210.5	201.4	195.7	164.0
28°	109.3	160.2	165.9	130.4	101.2	140.5	129.5	122.8	95.4
29°	93.5	104.5	108.9	92.1	85.4	93.5	88.2	85.4	77.2
30°	77.2	79.6	81.5	76.3	71.5	73.9	71.5	69.1	63.8
32.5°	48.9	53.2	54.7	50.8	46.5	48.0	48.0	44.6	40.3
35°	27.3	34.0	38.4	33.6	26.9	32.1	34.5	29.7	24.0
37.5°	16.8	21.1	26.9	21.1	16.3	20.6	24.9	18.7	15.3
40°	10.1	12.9	19.2	12.9	9.6	12.5	17.3	11.5	9.1
42.5°	5.8	7.7	12.5	7.7	5.3	7.2	11.5	6.7	5.3
45°	2.9	4.3	7.7	4.3	2.9	4.3	7.2	3.8	2.9
47.5°	1.4	2.4	4.3	2.4	1.4	2.4	3.8	2.4	1.4
50°	0.5	1.0	2.4	1.0	0.5	1.0	2.4	1.0	1.0
52.5°	0.5	0.5	1.4	0.5	0.5	0.5	1.0	0.5	0.5
55°	0.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5
57.5°	0.5	0.0	0.5	0.0	0.0	0.0	0.5	0.5	0.5
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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)