

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: P1212177

Luminaire Tested: **LDSQA4A20927D010TE LAR15SP 4LSQA1H**

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: P1212177
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26794)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A20927D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

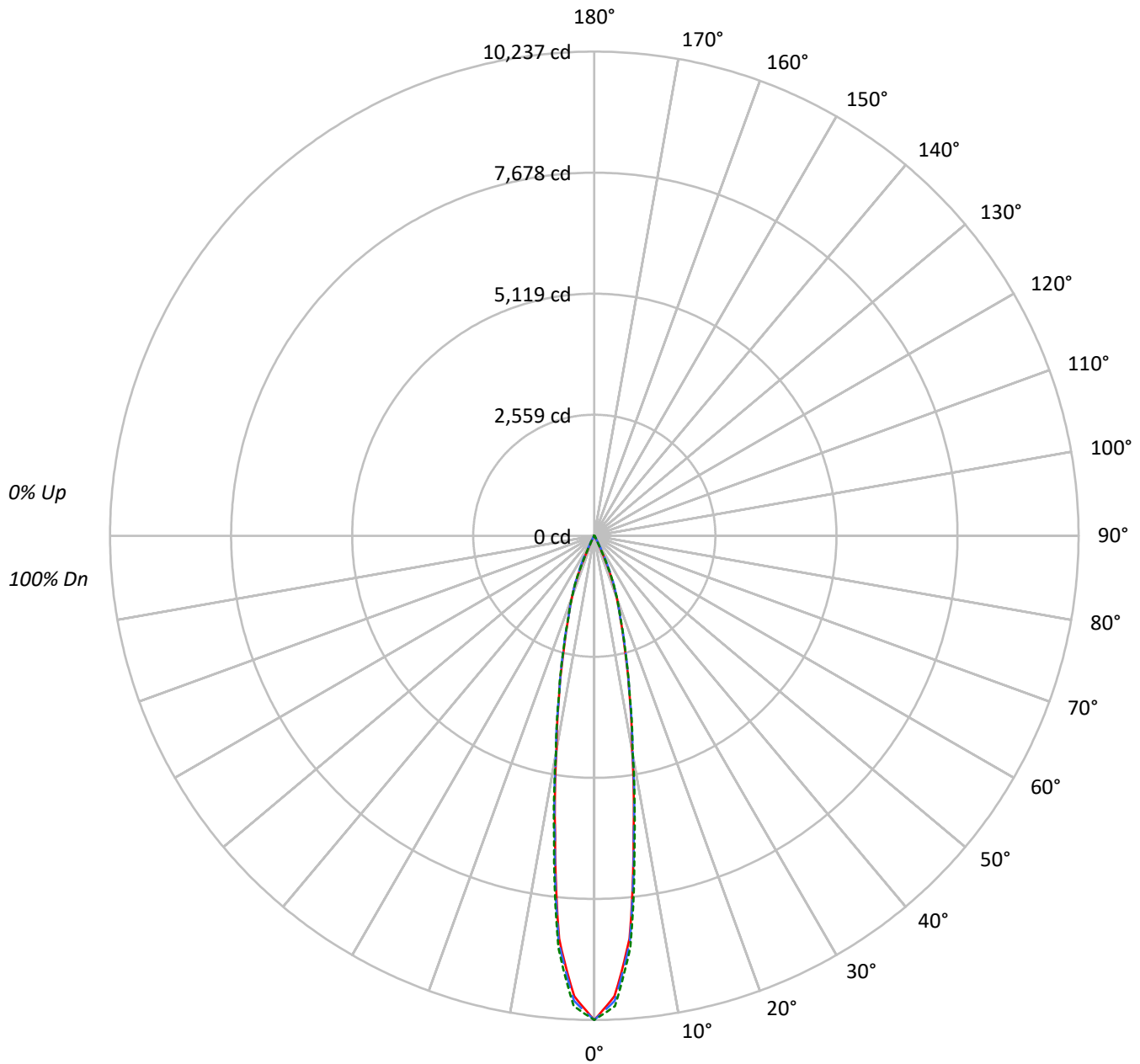
Lumens per Lamp: N/A
Luminaire Lumens: 1680.7 lumens
Efficiency: N/A
Efficacy: 58.4 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 28.8
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	100	100
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	97	97
2	112	108	105	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94	94	94
3	108	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	92	92	92
4	105	100	97	94	104	99	96	93	97	95	92	96	93	91	94	92	90	89	89	89
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87	87	87
6	100	94	90	87	99	93	90	87	92	89	87	91	88	86	90	87	86	85	85	85
7	97	91	88	85	96	91	87	85	90	87	84	89	86	84	88	85	83	82	82	82
8	95	89	85	82	94	88	85	82	88	84	82	87	84	82	86	83	81	80	80	80
9	93	87	83	80	92	86	83	80	85	82	80	85	82	80	84	81	79	79	79	79
10	91	84	81	78	90	84	81	78	83	80	78	83	80	78	82	80	78	77	77	77

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	991753	991753	991753
5°	831264	838285	850480
10°	452246	458964	460706
15°	250080	254112	255085
20°	141608	142031	142856
25°	38641	60543	37946
30°	6197	9430	6018
35°	2093	3524	1999
40°	923	1416	923
45°	562	658	438
50°	362	362	241
55°	270	270	135
60°	155	155	155
65°	183	183	183
70°	227	227	227
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	682.4	40.6
10°-20°	721.6	42.9
20°-30°	253.9	15.1
30°-40°	17.1	1.0
40°-50°	3.6	0.2
50°-60°	1.2	0.1
60°-70°	0.8	0.0
70°-80°	0.3	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°	1657.9	98.6
0°-40°	1675.0	99.7
0°-60°	1679.7	99.9
0°-90°	1680.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1680.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10237	10237	10237	10237	10237	
5°	8548	8677	8620	8636	8746	675
15°	2494	2535	2534	2528	2543	714
25°	362	549	566	540	355	224
35°	18	22	30	22	17	14
45°	4	4	5	4	3	3
55°	2	2	2	1	1	1
65°	1	1	1	1	1	1
75°	0	1	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°
0°	10237.4	10237.4	10237.4	10237.4	10237.4
2.5°	9745.8	9873.5	9841.4	9820.5	9954.6
5°	8548.1	8676.6	8620.3	8636.4	8745.7
7.5°	6355.0	6463.4	6405.6	6429.7	6513.2
10°	4597.4	4705.0	4665.7	4678.4	4683.4
12.5°	3427.8	3475.2	3443.8	3452.6	3468.7
15°	2493.5	2535.2	2533.7	2528.0	2543.4
17.5°	1830.0	1850.1	1830.0	1829.1	1839.5
20°	1373.6	1401.8	1377.7	1380.9	1385.7
22.5°	923.0	979.3	969.6	957.5	944.7
25°	361.5	548.7	566.4	539.8	355.0
27.5°	103.6	171.0	243.4	167.8	100.5
30°	55.4	65.8	84.3	64.2	53.8
32.5°	29.8	37.8	48.2	37.0	28.9
35°	17.7	21.8	29.8	21.8	16.9
37.5°	11.2	13.6	18.5	13.6	11.2
40°	7.3	8.8	11.2	8.8	7.3
42.5°	5.6	6.5	7.3	5.6	4.8
45°	4.1	4.1	4.8	4.1	3.2
47.5°	3.2	3.2	3.2	2.4	2.4
50°	2.4	2.4	2.4	1.6	1.6
52.5°	1.6	1.6	1.6	1.6	1.6
55°	1.6	1.6	1.6	0.8	0.8
57.5°	1.6	0.8	0.8	0.8	0.8
60°	0.8	0.8	0.8	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.0
70°	0.8	0.8	0.8	0.8	0.8
72.5°	0.8	0.8	0.8	0.0	0.0
75°	0.0	0.8	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

Classified

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— 0°-180° - - 45°-225° - - - 90°-270°

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