

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: P182609

Luminaire Tested: **LDSQA4A18840D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26829)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A18840D010TE LAR15SP 4LSQA1H-LSF-20
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT WITH SOLITE LENS
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2064.8 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 0.35 / 0.35 / 0.39
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

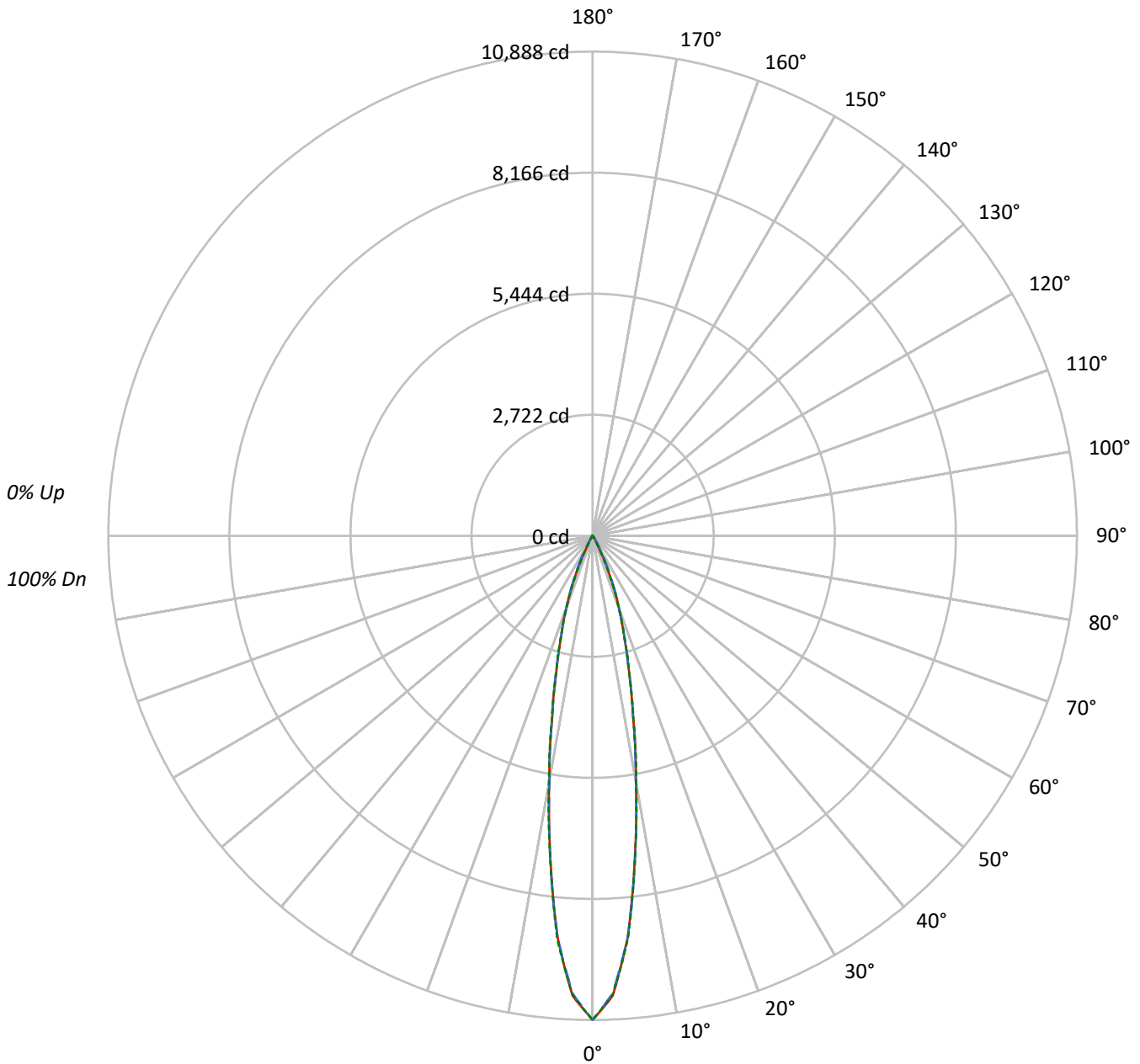
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	113	111	109	108	107	106	104	103	102	101	100	99	98	97	97	97	97																
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94	94	94	94																
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91	91	91	91																
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	88	88	88																
5	102	96	92	89	100	95	91	89	93	90	88	92	89	87	91	88	86	85	85	85	85																
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83	83	83	83																
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80	80	80	80																
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78	78	78	78																
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76	76	76	76																
10	89	82	78	76	88	82	78	76	81	78	76	81	78	75	80	77	75	74	74	74	74																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1054809	1054809	1054809
5°	880694	880694	884875
10°	551737	550498	556065
15°	314859	316645	317176
20°	178258	177711	176959
25°	66913	86528	68367
30°	13725	28972	13837
35°	5452	9426	5334
40°	2782	4110	2656
45°	1863	2151	1576
50°	1100	1100	784
55°	524	709	355
60°	407	407	194
65°	229	229	229
70°	283	283	283
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	752.4	36.4
10°-20°	894.8	43.3
20°-30°	356.8	17.3
30°-40°	45.0	2.2
40°-50°	11.1	0.5
50°-60°	3.2	0.2
60°-70°	1.1	0.1
70°-80°	0.4	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°	2003.9	97.1
0°-40°	2049.0	99.2
0°-60°	2063.3	99.9
0°-90°	2064.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2064.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10888	10888	10888	10888	10888	
5°	9056	9139	9056	9065	9099	750
15°	3139	3158	3157	3157	3162	892
25°	626	769	810	737	640	322
35°	46	56	80	54	45	34
45°	14	14	16	13	12	11
55°	3	3	4	3	2	4
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°	10888.3	10888.3	10888.3	10888.3	10888.3
2.5°	10353.5	10409.1	10302.1	10312.6	10326.2
5°	9056.4	9139.3	9056.4	9064.8	9099.4
7.5°	7287.5	7359.9	7312.7	7333.6	7295.9
10°	5608.8	5635.0	5596.2	5615.0	5652.8
12.5°	4217.3	4246.7	4218.4	4219.4	4236.2
15°	3139.4	3158.3	3157.2	3157.2	3162.5
17.5°	2344.6	2369.7	2342.5	2344.6	2350.9
20°	1729.1	1745.9	1723.8	1720.7	1716.5
22.5°	1179.6	1215.3	1228.9	1211.1	1154.5
25°	626.0	768.6	809.5	737.1	639.6
27.5°	251.7	382.7	472.9	374.3	273.7
30°	122.7	166.7	259.0	170.9	123.7
32.5°	72.4	90.2	141.6	89.1	71.3
35°	46.1	55.6	79.7	53.5	45.1
37.5°	30.4	36.7	49.3	35.7	29.4
40°	22.0	25.2	32.5	24.1	21.0
42.5°	16.8	17.8	22.0	17.8	15.7
45°	13.6	13.6	15.7	12.6	11.5
47.5°	10.5	10.5	10.5	9.4	7.3
50°	7.3	7.3	7.3	6.3	5.2
52.5°	5.2	5.2	5.2	4.2	3.1
55°	3.1	3.1	4.2	3.1	2.1
57.5°	3.1	2.1	3.1	2.1	2.1
60°	2.1	2.1	2.1	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	1.0
65°	1.0	1.0	1.0	1.0	1.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	1.0	1.0	1.0
72.5°	1.0	1.0	1.0	1.0	0.0
75°	0.0	1.0	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



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)