

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: P182608

Luminaire Tested: **LDSQA4A18835D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182608
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: LDSQA4A18835D010TE 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 / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1969.0 lumens
Efficiency: N/A
Efficacy: 67.6 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

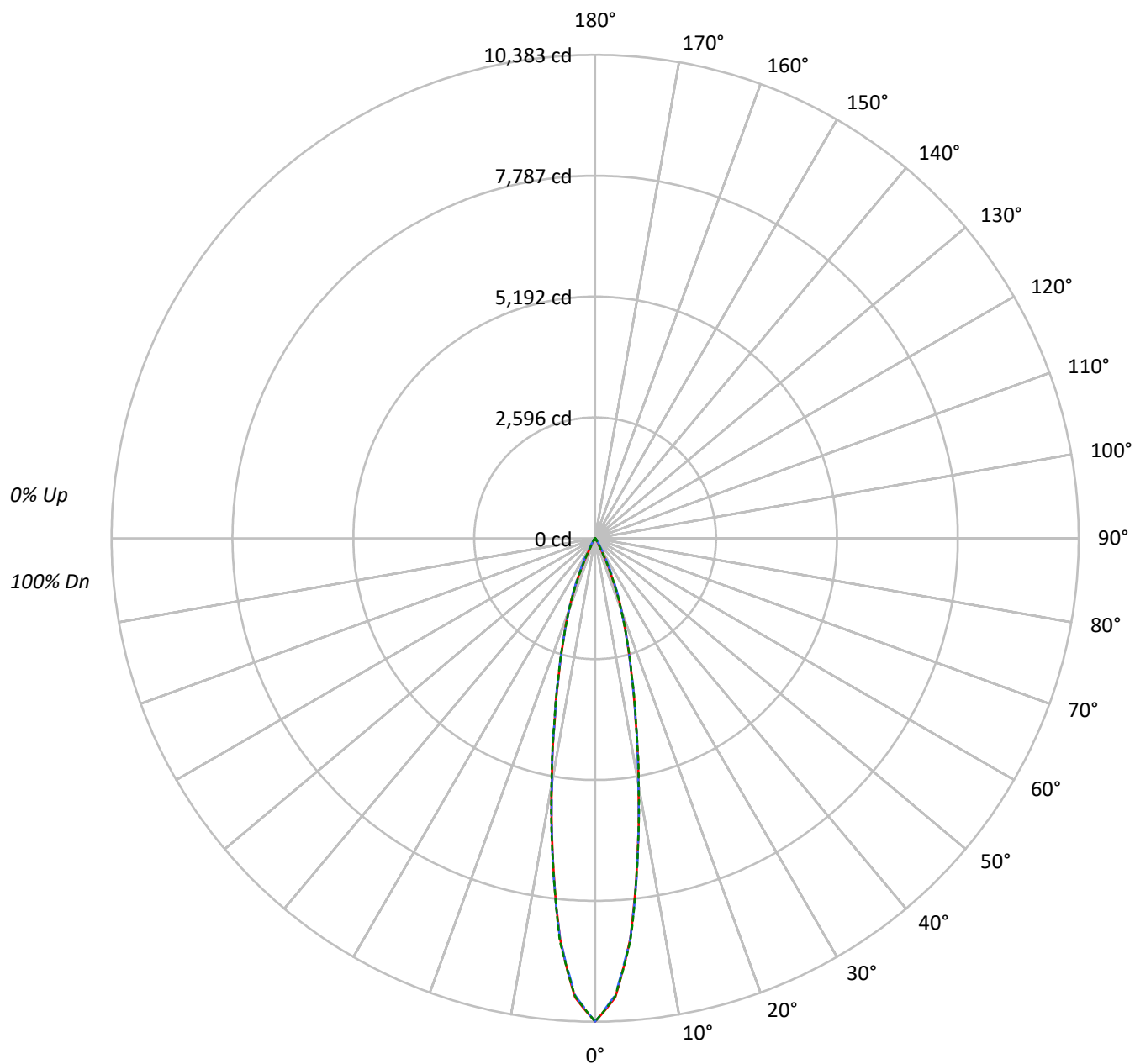
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	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			100
1	115	113	111	109	113	111	109	108		107	106	104			103	102	101			97
2	111	108	105	102	109	106	104	101		103	101	99			100	99	97			94
3	108	103	100	97	106	102	99	96		100	97	95			97	95	93			91
4	105	99	96	93	103	98	95	92		96	93	91			95	92	90			88
5	102	96	92	89	100	95	91	89		93	90	88			92	89	87			85
6	99	93	89	86	98	92	88	85		91	87	85			89	87	84			83
7	96	90	86	83	95	89	85	83		88	85	82			87	84	82			80
8	94	87	83	80	93	87	83	80		86	82	80			85	82	80			78
9	91	85	81	78	90	84	80	78		83	80	78			83	80	77			76
10	89	82	78	76	88	82	78	76		81	78	76			81	78	75			74

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1005838	1005838	1005838
5°	839812	839812	843799
10°	526122	524941	530253
15°	300237	301942	302443
20°	169979	169464	168742
25°	63803	82509	65192
30°	13088	27630	13200
35°	5204	8988	5085
40°	2656	3920	2529
45°	1781	2055	1507
50°	1055	1055	754
55°	507	676	338
60°	388	388	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°	717.4	36.4
10°-20°	853.3	43.3
20°-30°	340.2	17.3
30°-40°	42.9	2.2
40°-50°	10.6	0.5
50°-60°	3.1	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°	1910.9	97.0
0°-40°	1953.8	99.2
0°-60°	1967.5	99.9
0°-90°	1969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1969.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10383	10383	10383	10383	10383	
5°	8636	8715	8636	8644	8677	715
15°	2994	3012	3011	3011	3016	851
25°	597	733	772	703	610	307
35°	44	53	76	51	43	32
45°	13	13	15	12	11	10
55°	3	3	4	3	2	3
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°	10382.8	10382.8	10382.8	10382.8	10382.8
2.5°	9872.8	9925.8	9823.8	9833.8	9846.8
5°	8636.0	8715.0	8636.0	8644.0	8677.0
7.5°	6949.2	7018.2	6973.2	6993.2	6957.2
10°	5348.4	5373.4	5336.4	5354.4	5390.4
12.5°	4021.5	4049.5	4022.5	4023.5	4039.5
15°	2993.6	3011.6	3010.6	3010.6	3015.6
17.5°	2235.7	2259.7	2233.7	2235.7	2241.7
20°	1648.8	1664.8	1643.8	1640.8	1636.8
22.5°	1124.9	1158.9	1171.9	1154.9	1100.9
25°	596.9	732.9	771.9	702.9	609.9
27.5°	240.0	365.0	450.9	357.0	261.0
30°	117.0	159.0	247.0	163.0	118.0
32.5°	69.0	86.0	135.0	85.0	68.0
35°	44.0	53.0	76.0	51.0	43.0
37.5°	29.0	35.0	47.0	34.0	28.0
40°	21.0	24.0	31.0	23.0	20.0
42.5°	16.0	17.0	21.0	17.0	15.0
45°	13.0	13.0	15.0	12.0	11.0
47.5°	10.0	10.0	10.0	9.0	7.0
50°	7.0	7.0	7.0	6.0	5.0
52.5°	5.0	5.0	5.0	4.0	3.0
55°	3.0	3.0	4.0	3.0	2.0
57.5°	3.0	2.0	3.0	2.0	2.0
60°	2.0	2.0	2.0	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)