

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: P182505

Luminaire Tested: **LDSQA4A28840D010TE LAR35FL 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182505
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26795)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A28840D010TE LAR35FL 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 35° FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3378.2 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 0.62 / 0.63 / 0.57
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

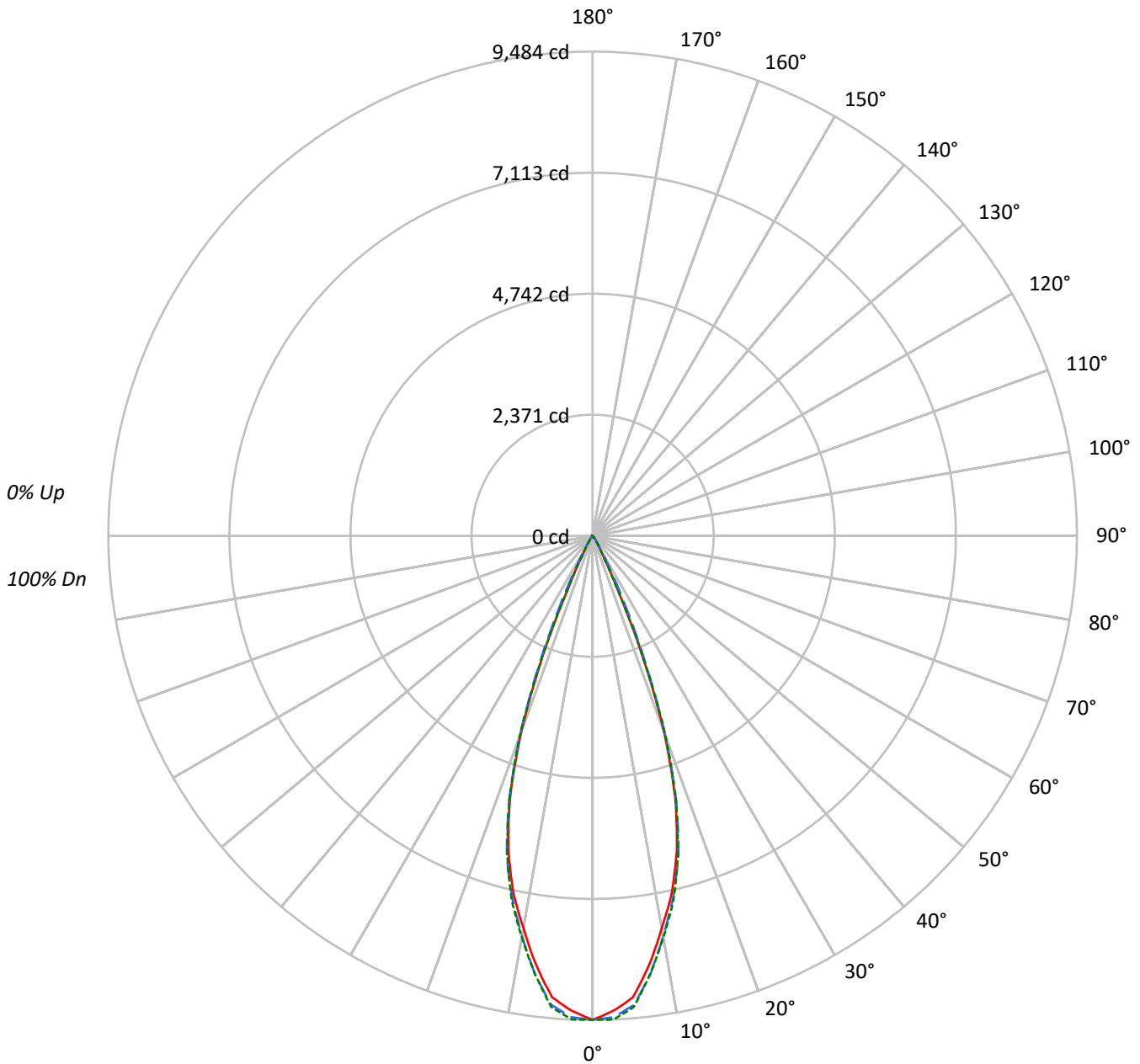
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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																			
1	115	113	111	109	112	110	109	107	107	105	104	103	102	101	99	99	98	96																			
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	93																			
3	107	102	98	95	105	101	97	95	98	96	93	96	94	92	94	92	90	89																			
4	103	98	94	91	102	97	93	90	95	92	89	93	90	88	91	89	87	86																			
5	100	94	90	86	99	93	89	86	91	88	85	90	87	85	88	86	84	83																			
6	97	90	86	83	96	90	85	82	88	85	82	87	84	81	86	83	81	80																			
7	94	87	83	79	93	86	82	79	85	82	79	84	81	79	83	80	78	77																			
8	91	84	80	77	90	83	79	76	82	79	76	82	78	76	81	78	76	74																			
9	88	81	77	74	87	81	77	74	80	76	73	79	76	73	78	75	73	72																			
10	86	78	74	71	85	78	74	71	77	74	71	77	73	71	76	73	71	70																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	918466	918466	918466
5°	882590	897391	901018
10°	767472	783152	785415
15°	639287	651241	648363
20°	420072	429546	430144
25°	116521	163809	114683
30°	27954	35505	28435
35°	7474	12914	7309
40°	2719	4907	2542
45°	1384	1767	1178
50°	859	859	648
55°	490	490	236
60°	562	271	271
65°	321	321	321
70°	397	397	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	833.2	24.7
10°-20°	1727.6	51.1
20°-30°	737.8	21.8
30°-40°	65.2	1.9
40°-50°	9.7	0.3
50°-60°	2.8	0.1
60°-70°	1.4	0.0
70°-80°	0.6	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°	3298.6	97.6
0°-40°	3363.7	99.6
0°-60°	3376.2	99.9
0°-90°	3378.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3378.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9481	9481	9481	9481	9481	
5°	9076	9150	9228	9214	9265	823
15°	6374	6436	6493	6446	6465	1709
25°	1090	1485	1532	1466	1073	668
35°	63	79	109	78	62	53
45°	10	10	13	10	9	9
55°	3	3	3	3	1	3
65°	1	1	1	1	1	2
75°	0	1	0	0	0	1
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°
0°	9480.9	9480.9	9480.9	9480.9	<i>9480.9</i>
2.5°	<i>9314.3</i>	<i>9380.3</i>	<i>9439.2</i>	<i>9434.9</i>	<i>9483.8</i>
5°	9075.9	9150.5	9228.1	9213.7	<i>9265.4</i>
7.5°	8481.2	8557.4	8657.9	8619.1	<i>8653.6</i>
10°	7801.9	7882.3	7961.3	7936.9	<i>7984.3</i>
12.5°	7165.6	7211.6	7269.0	7264.7	<i>7315.0</i>
15°	6374.2	6436.0	6493.4	6446.0	<i>6464.7</i>
17.5°	5383.2	5407.6	5450.7	5403.3	<i>5416.2</i>
20°	4074.7	4142.2	4166.6	4112.1	<i>4172.4</i>
22.5°	2549.4	2711.7	2724.6	2695.9	<i>2605.4</i>
25°	1090.1	1485.1	1532.5	1466.4	<i>1072.9</i>
27.5°	440.9	563.0	729.6	551.5	<i>429.4</i>
30°	249.9	271.5	317.4	267.1	<i>254.2</i>
32.5°	119.2	152.2	182.4	147.9	<i>120.6</i>
35°	63.2	79.0	109.2	77.6	<i>61.8</i>
37.5°	35.9	46.0	66.1	43.1	<i>35.9</i>
40°	21.5	27.3	38.8	25.9	<i>20.1</i>
42.5°	14.4	17.2	21.5	15.8	<i>12.9</i>
45°	10.1	10.1	12.9	10.1	<i>8.6</i>
47.5°	7.2	7.2	8.6	5.7	<i>5.7</i>
50°	5.7	5.7	5.7	4.3	<i>4.3</i>
52.5°	4.3	4.3	4.3	2.9	<i>2.9</i>
55°	2.9	2.9	2.9	2.9	<i>1.4</i>
57.5°	2.9	2.9	2.9	1.4	<i>1.4</i>
60°	2.9	2.9	1.4	1.4	<i>1.4</i>
62.5°	1.4	1.4	1.4	1.4	<i>1.4</i>
65°	1.4	1.4	1.4	1.4	<i>1.4</i>
67.5°	1.4	1.4	1.4	1.4	<i>1.4</i>
70°	1.4	1.4	1.4	1.4	<i>0.0</i>
72.5°	1.4	1.4	1.4	1.4	<i>1.4</i>
75°	0.0	1.4	0.0	0.0	<i>0.0</i>
77.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
80°	0.0	0.0	0.0	0.0	<i>0.0</i>
82.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
85°	0.0	0.0	0.0	0.0	<i>0.0</i>
87.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>



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







(END OF REPORT)