

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: P182529

Luminaire Tested: **LDSQA4A13840D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182529
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13840D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1635.5 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

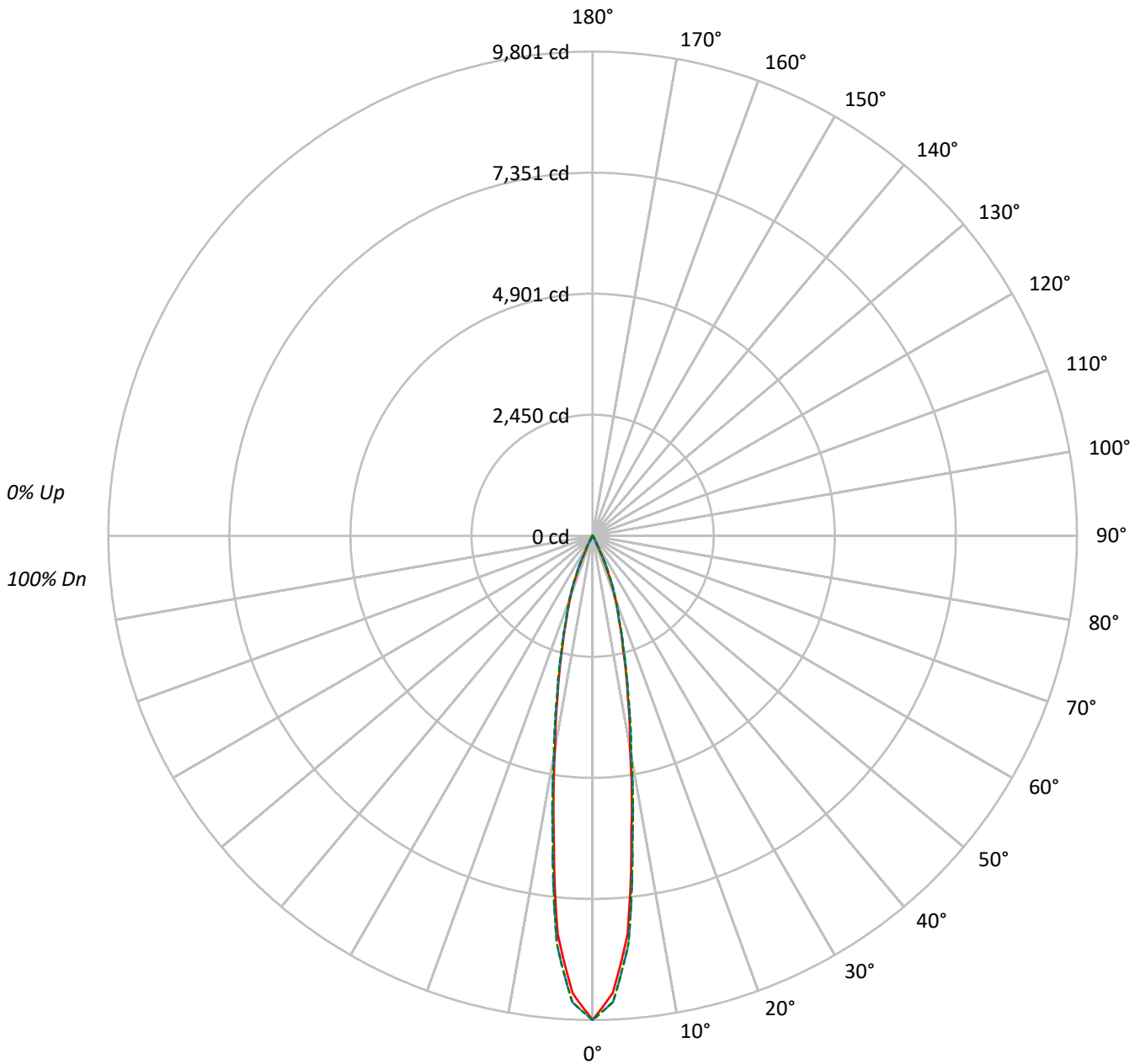
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	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	100	100	100	100	100		
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97	97	97	97	97		
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94	94	94	94	94	94	94		
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91	91	91	91	91		
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89	89	89	89		
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86	86	86	86	86	86	86		
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84	84	84	84	84	84	84		
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82	82	82	82	82	82	82		
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80	80	80	80	80	80	80		
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78	78	78	78	78	78	78		
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76	76	76	76	76	76	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	949437	949437	949437
5°	787533	807915	806768
10°	429129	441799	444032
15°	238597	245437	246700
20°	134515	138340	140072
25°	40490	59655	40308
30°	7629	10929	7629
35°	3288	5073	3382
40°	1593	2656	1593
45°	1041	1384	808
50°	633	769	377
55°	422	422	287
60°	329	155	155
65°	183	183	183
70°	0	227	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	652.5	39.9
10°-20°	695.5	42.5
20°-30°	253.7	15.5
30°-40°	24.2	1.5
40°-50°	6.7	0.4
50°-60°	2.0	0.1
60°-70°	0.8	0.0
70°-80°	0.2	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°	1601.7	97.9
0°-40°	1625.9	99.4
0°-60°	1634.5	99.9
0°-90°	1635.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1635.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9801	9801	9801	9801	9801	
5°	8098	8303	8308	8221	8296	640
15°	2379	2435	2447	2442	2460	681
25°	379	548	558	553	377	219
35°	28	34	43	34	29	20
45°	8	8	10	8	6	6
55°	2	2	2	2	2	2
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°	9800.6	9800.6	9800.6	9800.6	9800.6
2.5°	9266.0	9461.3	9447.0	9403.2	9447.0
5°	8098.4	8303.0	8308.0	8221.3	8296.2
7.5°	6019.9	6178.2	6206.0	6120.9	6177.3
10°	4362.4	4503.8	4491.2	4474.3	4513.9
12.5°	3258.7	3330.3	3322.7	3341.2	3343.7
15°	2379.0	2435.4	2447.2	2442.1	2459.8
17.5°	1751.8	1782.2	1776.3	1785.5	1792.3
20°	1304.8	1352.8	1341.9	1350.3	1358.7
22.5°	865.4	953.8	942.8	956.3	948.7
25°	378.8	548.0	558.1	553.1	377.1
27.5°	116.2	196.1	251.7	191.9	116.2
30°	68.2	81.7	97.7	80.0	68.2
32.5°	42.9	51.4	61.5	50.5	42.1
35°	27.8	33.7	42.9	33.7	28.6
37.5°	18.5	22.7	30.3	22.7	19.4
40°	12.6	15.2	21.0	16.0	12.6
42.5°	9.3	10.9	14.3	10.9	8.4
45°	7.6	7.6	10.1	7.6	5.9
47.5°	5.9	5.9	6.7	5.1	4.2
50°	4.2	4.2	5.1	3.4	2.5
52.5°	2.5	3.4	3.4	2.5	1.7
55°	2.5	2.5	2.5	1.7	1.7
57.5°	1.7	1.7	1.7	0.8	0.8
60°	1.7	1.7	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	0.8
70°	0.0	0.8	0.8	0.0	0.0
72.5°	0.0	0.8	0.0	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



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







(END OF REPORT)