

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: P1212205

Luminaire Tested: **LDSQA4A20935D010TE 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: P1212205
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: LDSQA4A20935D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

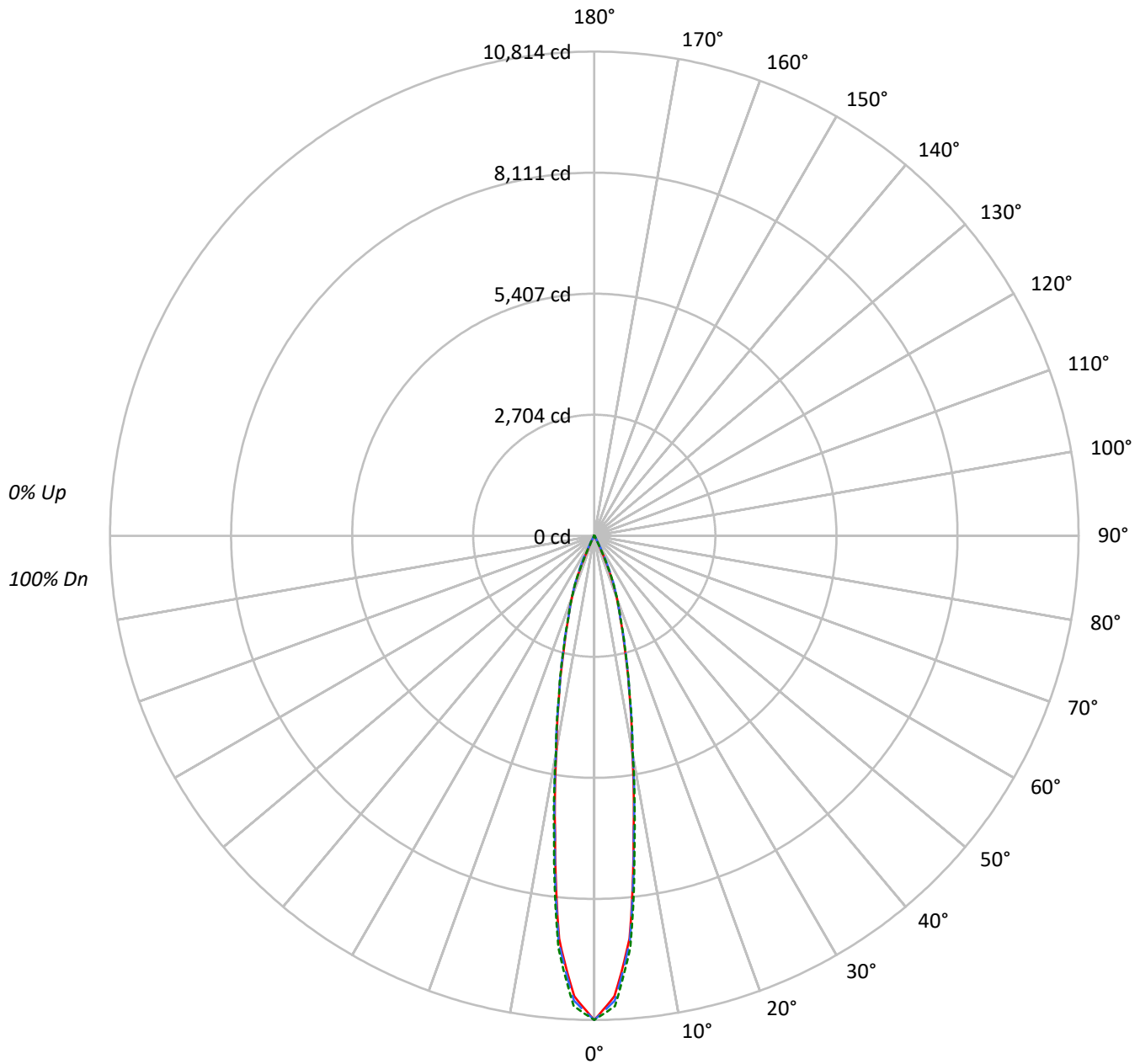
Lumens per Lamp: N/A
Luminaire Lumens: 1775.3 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1047611	1047611	1047611
5°	878088	885508	898383
10°	477714	484816	486636
15°	264161	268414	269447
20°	149587	150031	150907
25°	40821	63942	40084
30°	6555	9967	6365
35°	2212	3713	2105
40°	961	1492	961
45°	575	699	466
50°	377	377	256
55°	287	287	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°	720.8	40.6
10°-20°	762.2	42.9
20°-30°	268.2	15.1
30°-40°	18.1	1.0
40°-50°	3.7	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°	1751.2	98.6
0°-40°	1769.3	99.7
0°-60°	1774.3	99.9
0°-90°	1775.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1775.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10814	10814	10814	10814	10814	
5°	9030	9165	9106	9123	9238	712
15°	2634	2678	2676	2670	2687	755
25°	382	580	598	570	375	236
35°	19	23	31	23	18	14
45°	4	4	5	4	3	4
55°	2	2	2	1	1	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°	10814.0	10814.0	10814.0	10814.0	10814.0
2.5°	10294.7	10429.7	10395.8	10373.7	10515.4
5°	9029.6	9165.3	9105.9	9122.9	9238.3
7.5°	6713.0	6827.5	6766.5	6791.9	6880.2
10°	4856.3	4970.1	4928.5	4942.0	4947.0
12.5°	3620.9	3670.9	3637.8	3647.0	3664.2
15°	2633.9	2678.1	2676.3	2670.4	2686.6
17.5°	1933.0	1954.2	1933.0	1932.2	1943.2
20°	1451.0	1480.7	1455.3	1458.7	1463.8
22.5°	975.0	1034.4	1024.2	1011.5	997.9
25°	381.9	579.6	598.2	570.2	375.0
27.5°	109.5	180.7	257.1	177.3	106.1
30°	58.6	69.6	89.1	67.9	56.9
32.5°	31.4	39.8	51.0	39.0	30.6
35°	18.7	22.9	31.4	22.9	17.8
37.5°	11.8	14.5	19.5	14.5	11.8
40°	7.6	9.4	11.8	9.4	7.6
42.5°	5.9	6.8	7.6	5.9	5.1
45°	4.2	4.2	5.1	4.2	3.4
47.5°	3.4	3.4	3.4	2.5	2.5
50°	2.5	2.5	2.5	1.7	1.7
52.5°	1.7	1.7	1.7	1.7	1.7
55°	1.7	1.7	1.7	0.8	0.8
57.5°	1.7	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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