

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: P282517

Luminaire Tested: **LDA2B109030D010 EU2B10SP159030 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P282517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B109030D010 EU2B10SP159030 2LBALPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 1000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MMS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 872.8 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

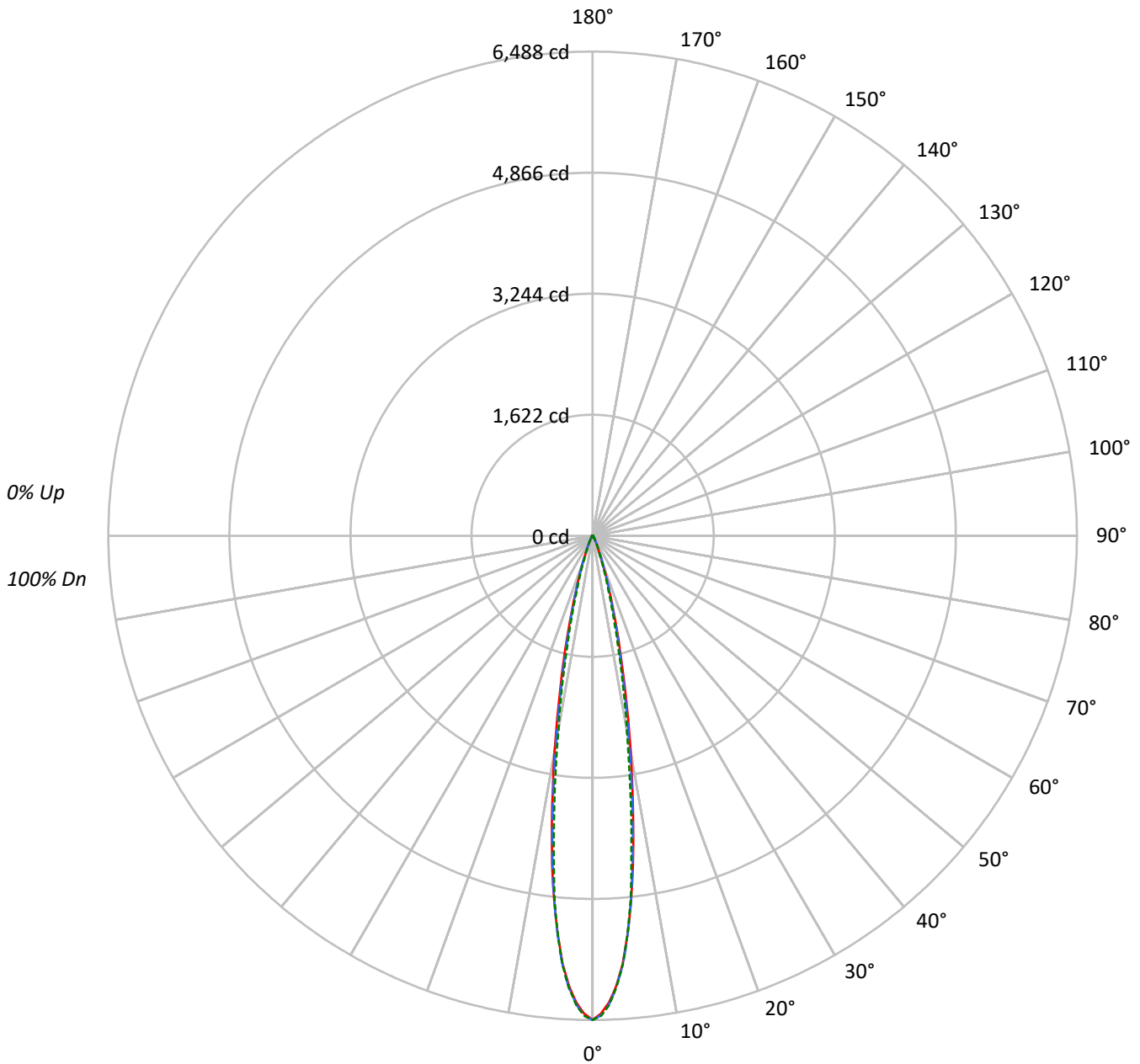
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	107	107	105	104	103	102	101	100	99	98	96	95	94	92	91	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0								
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	92	91	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0										
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	95	94	92	91	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0												
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0													
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0														
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0																
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0																	
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0																		
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3200685	3200685	3200685
5°	2655263	2663881	2653778
10°	1469603	1416500	1319562
15°	594940	568993	505198
20°	199299	211322	171106
25°	75830	76102	72019
30°	34010	33441	32301
35°	16503	14696	11684
40°	10884	13782	9596
45°	2791	4535	4186
50°	768	1151	1535
55°	6881	6021	9376
60°	9867	7894	12729
65°	4670	12141	11674
70°	4327	3606	4327
75°	1906	4766	13343
80°	22729	30969	28412
85°	0	14152	16982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	424.9	48.7
10°-20°	321.9	36.9
20°-30°	73.2	8.4
30°-40°	21.6	2.5
40°-50°	7.2	0.8
50°-60°	6.4	0.7
60°-70°	7.6	0.9
70°-80°	4.9	0.6
80°-90°	5.1	0.6
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°	819.9	93.9
0°-40°	841.5	96.4
0°-60°	855.1	98.0
0°-90°	872.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	872.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6488	6488	6488	6488	6488	
5°	5362	5404	5379	5309	5358	430
15°	1165	1181	1114	1010	989	338
25°	139	150	140	138	132	73
35°	27	30	24	28	19	22
45°	4	11	6	11	6	6
55°	8	11	7	10	11	3
65°	4	8	10	10	10	4
75°	1	4	2	4	7	2
85°	0	0	2	2	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6487.5	6487.5	6487.5	6487.5	6487.5
1°	6403.9	6429.8	6427.3	6416.8	6435.2
2°	6256.6	6288.0	6285.0	6262.1	6294.9
3°	6040.7	6068.5	6064.1	6031.2	6067.1
4°	5752.1	5783.9	5771.5	5722.3	5768.0
5°	5361.5	5403.8	5378.9	5308.8	5358.5
6°	4928.7	4964.5	4925.2	4832.1	4880.9
7°	4444.1	4466.5	4414.7	4295.3	4262.5
8°	3915.2	3944.5	3872.4	3733.1	3697.2
9°	3409.7	3419.6	3332.1	3183.8	3138.5
10°	2933.5	2926.1	2827.5	2677.3	2634.0
11°	2482.2	2472.3	2368.3	2229.5	2243.4
12°	2071.8	2091.2	1970.3	1844.4	1846.9
13°	1734.4	1736.4	1632.4	1512.5	1505.6
14°	1420.0	1438.4	1349.3	1241.9	1222.0
15°	1164.8	1180.7	1114.0	1009.5	989.1
16°	932.4	952.3	904.5	810.0	783.1
17°	750.8	776.2	744.8	665.7	634.9
18°	600.5	619.9	612.5	530.9	505.5
19°	474.2	501.0	503.0	434.9	404.5
20°	379.6	404.0	402.5	349.8	325.9
22.5°	217.9	230.9	231.4	206.5	192.5
25°	139.3	149.8	139.8	138.3	132.3
26°	120.9	129.4	118.4	118.4	112.9
27°	98.0	105.5	95.0	99.5	92.0
28°	82.6	90.6	81.6	80.6	79.6
29°	68.7	76.1	64.7	69.7	66.7
30°	59.7	65.2	58.7	66.2	56.7
32.5°	46.3	50.7	39.3	49.8	37.3
35°	27.4	30.4	24.4	28.4	19.4
37.5°	28.4	29.4	26.4	29.4	27.4
40°	16.9	17.4	21.4	21.4	14.9
42.5°	15.9	15.4	9.5	14.9	11.9
45°	4.0	11.4	6.5	11.4	6.0
47.5°	3.0	4.0	4.0	8.0	8.0
50°	1.0	4.0	1.5	3.0	2.0
52.5°	0.0	9.5	2.0	7.0	6.0
55°	8.0	11.4	7.0	10.4	10.9
57.5°	1.0	8.0	4.0	8.5	6.0
60°	10.0	13.4	8.0	14.4	12.9
62.5°	1.0	9.0	10.4	8.0	7.0
65°	4.0	8.5	10.4	10.0	10.0
67.5°	5.0	8.5	6.5	6.5	9.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
75°	1.0	3.5	2.5	4.5	7.0
77.5°	1.0	4.0	3.5	8.0	6.0
80°	8.0	9.0	10.9	14.4	10.0
82.5°	7.0	7.0	10.9	8.0	6.0
85°	0.0	0.0	2.5	2.5	3.0
87.5°	0.0	2.0	5.0	4.0	7.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	3.0	1.0	2.5	2.5	3.0
72.5°	1.0	4.5	4.0	2.5	5.0



(END OF REPORT)