

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: P282589

Luminaire Tested: **LDA2B208040D010 EU2B20SP158040 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P282589
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: LDA2B208040D010 EU2B20SP158040 2LBALPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 2000 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: 2107.8 lumens
Efficiency: N/A
Efficacy: 102.3 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

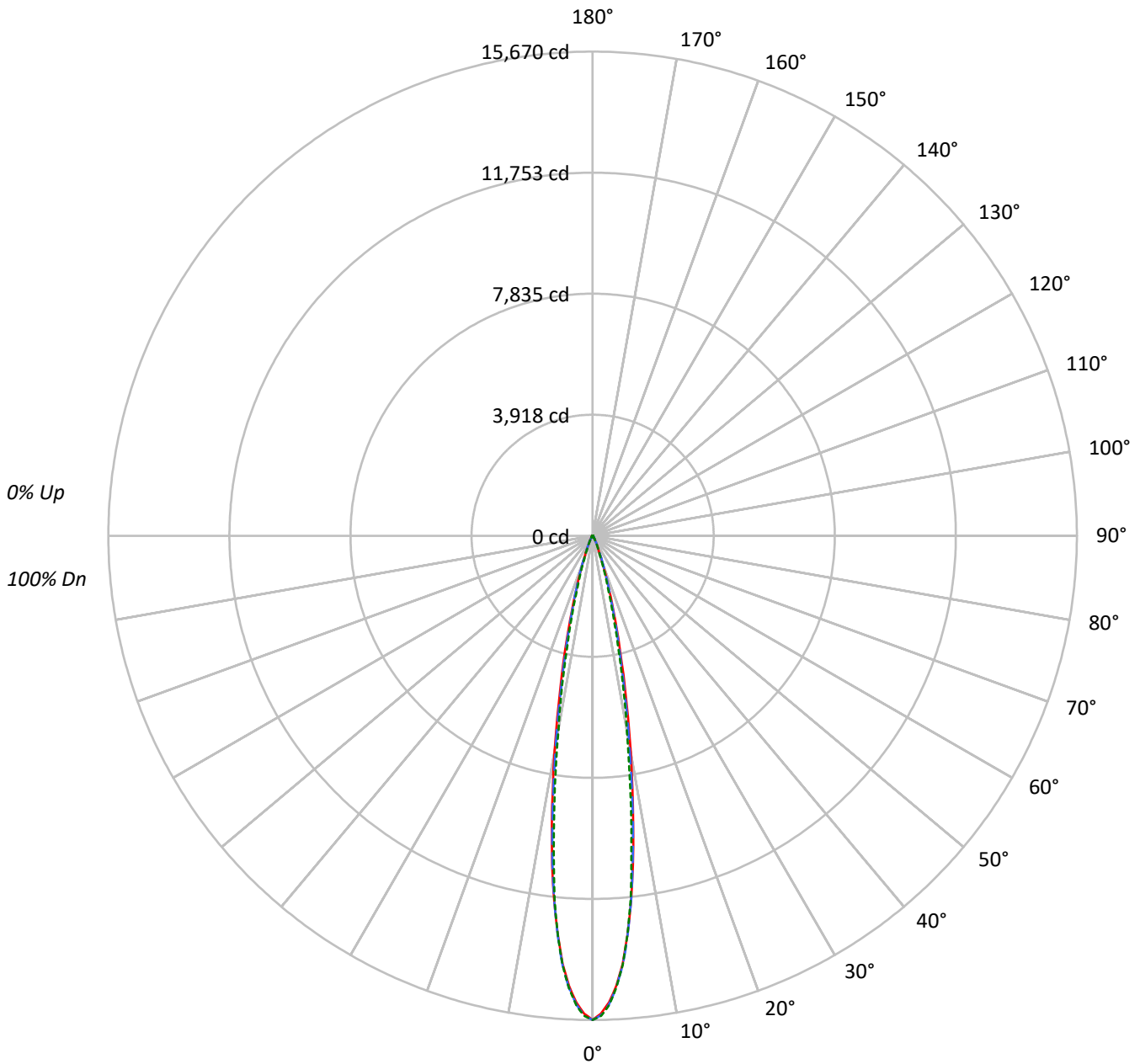
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	96	96	96		
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	94	94	94	94	94	94		
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	91	91	91	91	91	91		
4	105	100	96	93	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	93	90	95	91	89	93	90	88	92	89	88	87	87	87	87	87	87	87		
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	85	85	85	85	85	85		
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	83	83	83	83	83	83		
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	81	81	81	81	81	81		
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	80	80	80	80	80	80		
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	78	78	78	78	78	78		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7730733	7730733	7730733
5°	6413391	6434241	6409825
10°	3549642	3421393	3187188
15°	1436937	1374317	1220270
20°	481395	510429	413247
25°	183179	183832	174033
30°	82149	80781	78047
35°	39811	35475	28247
40°	26341	33297	23250
45°	6698	10884	10047
50°	1842	2763	3684
55°	16515	14451	22708
60°	23681	18945	30786
65°	11207	29418	28017
70°	10386	8655	10386
75°	4575	11437	32024
80°	54550	75007	68188
85°	0	33964	40757



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1026.3	48.7
10°-20°	777.4	36.9
20°-30°	176.7	8.4
30°-40°	52.2	2.5
40°-50°	17.4	0.8
50°-60°	15.3	0.7
60°-70°	18.4	0.9
70°-80°	11.8	0.6
80°-90°	12.3	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°	1980.3	94.0
0°-40°	2032.6	96.4
0°-60°	2065.3	98.0
0°-90°	2107.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2107.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15670	15670	15670	15670	15670	
5°	12950	13052	12992	12823	12943	1038
15°	2813	2852	2691	2438	2389	818
25°	336	362	338	334	320	176
35°	66	73	59	68	47	52
45°	10	28	16	28	14	14
55°	19	28	17	25	26	8
65°	10	20	25	24	24	10
75°	2	8	6	11	17	5
85°	0	0	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15669.5	15669.5	15669.5	15669.5	15669.5
1°	15467.6	15530.1	15524.1	15498.8	15543.3
2°	15111.9	15187.6	15180.4	15125.1	15204.4
3°	14590.3	14657.6	14646.8	14567.5	14654.0
4°	13893.3	13970.2	13940.2	13821.2	13931.8
5°	12949.9	13052.1	12992.0	12822.6	12942.7
6°	11904.4	11991.0	11896.0	11671.3	11789.1
7°	10733.9	10788.0	10663.0	10374.6	10295.3
8°	9456.5	9527.4	9353.1	9016.7	8930.1
9°	8235.5	8259.6	8048.0	7689.9	7580.6
10°	7085.5	7067.4	6829.5	6466.6	6362.0
11°	5995.5	5971.4	5720.3	5385.0	5418.6
12°	5004.0	5050.9	4758.9	4454.8	4460.9
13°	4189.3	4194.1	3942.9	3653.3	3636.5
14°	3429.8	3474.2	3259.1	2999.5	2951.5
15°	2813.3	2851.7	2690.7	2438.3	2389.1
16°	2252.1	2300.1	2184.8	1956.4	1891.5
17°	1813.4	1874.7	1799.0	1607.9	1533.4
18°	1450.5	1497.4	1479.3	1282.3	1221.0
19°	1145.3	1210.2	1215.0	1050.3	977.0
20°	916.9	975.8	972.2	844.8	787.1
22.5°	526.4	557.6	558.8	498.7	465.1
25°	336.5	361.7	337.7	334.1	319.7
26°	292.0	312.5	286.0	286.0	272.8
27°	236.7	254.8	229.5	240.3	222.3
28°	199.5	218.7	197.1	194.7	192.3
29°	165.8	183.9	156.2	168.2	161.0
30°	144.2	157.4	141.8	159.8	137.0
32.5°	111.8	122.6	94.9	120.2	90.1
35°	66.1	73.3	58.9	68.5	46.9
37.5°	68.5	70.9	63.7	70.9	66.1
40°	40.9	42.1	51.7	51.7	36.1
42.5°	38.5	37.3	22.8	36.1	28.8
45°	9.6	27.6	15.6	27.6	14.4
47.5°	7.2	9.6	9.6	19.2	19.2
50°	2.4	9.6	3.6	7.2	4.8
52.5°	0.0	22.8	4.8	16.8	14.4
55°	19.2	27.6	16.8	25.2	26.4
57.5°	2.4	19.2	9.6	20.4	14.4
60°	24.0	32.4	19.2	34.9	31.2
62.5°	2.4	21.6	25.2	19.2	16.8
65°	9.6	20.4	25.2	24.0	24.0
67.5°	12.0	20.4	15.6	15.6	21.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
75°	2.4	8.4	6.0	10.8	16.8
77.5°	2.4	9.6	8.4	19.2	14.4
80°	19.2	21.6	26.4	34.9	24.0
82.5°	16.8	16.8	26.4	19.2	14.4
85°	0.0	0.0	6.0	6.0	7.2
87.5°	0.0	4.8	12.0	9.6	16.8
90°	0.0	0.0	0.0	0.0	0.0



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







70°	7.2	2.4	6.0	6.0	7.2
72.5°	2.4	10.8	9.6	6.0	12.0



(END OF REPORT)