

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: P282613

Luminaire Tested: **LDA2B209727D010 EU2B20SP159727 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P282613
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: LDA2B209727D010 EU2B20SP159727 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: 1393.3 lumens
Efficiency: N/A
Efficacy: 67.6 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

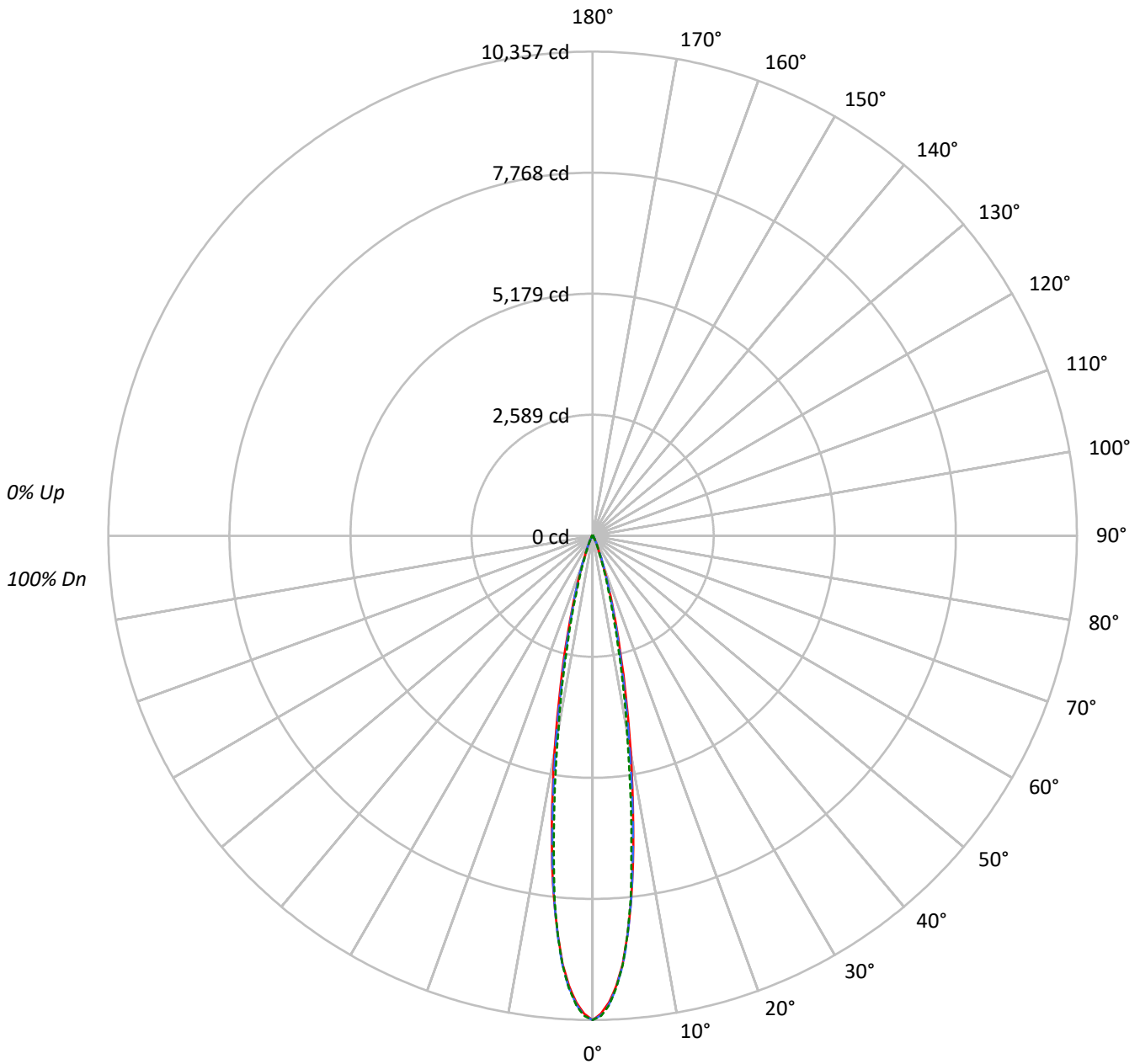
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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				100															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	98	99	98	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	98	96	95	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5109847	5109847	5109847
5°	4239111	4252879	4236783
10°	2346205	2261441	2106690
15°	949769	908397	806550
20°	318217	337381	273170
25°	121067	121502	115024
30°	54291	53379	51613
35°	26320	23429	18671
40°	17389	22026	15328
45°	4465	7187	6628
50°	1228	1842	2456
55°	10924	9548	15053
60°	15689	12531	20425
65°	7471	19495	18562
70°	6924	5770	6924
75°	3050	7625	21159
80°	36083	49720	45174
85°	0	22643	27171



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	678.3	48.7
10°-20°	513.8	36.9
20°-30°	116.8	8.4
30°-40°	34.5	2.5
40°-50°	11.5	0.8
50°-60°	10.1	0.7
60°-70°	12.2	0.9
70°-80°	7.8	0.6
80°-90°	8.1	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°	1309.0	93.9
0°-40°	1343.5	96.4
0°-60°	1365.2	98.0
0°-90°	1393.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1393.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10357	10357	10357	10357	10357	
5°	8560	8627	8587	8475	8555	686
15°	1860	1885	1778	1612	1579	540
25°	222	239	223	221	211	116
35°	44	48	39	45	31	34
45°	6	18	10	18	10	10
55°	13	18	11	17	18	5
65°	6	14	17	16	16	7
75°	2	6	4	7	11	4
85°	0	0	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10357.2	10357.2	10357.2	10357.2	10357.2
1°	10223.8	10265.1	10261.1	10244.4	10273.8
2°	9988.6	10038.7	10033.9	9997.4	10049.8
3°	9643.9	9688.4	9681.2	9628.8	9686.0
4°	9183.2	9234.0	9214.2	9135.5	9208.6
5°	8559.6	8627.2	8587.4	8475.4	8554.9
6°	7868.6	7925.8	7863.0	7714.5	7792.3
7°	7094.9	7130.7	7048.0	6857.4	6805.0
8°	6250.5	6297.4	6182.2	5959.8	5902.6
9°	5443.5	5459.4	5319.6	5082.9	5010.6
10°	4683.3	4671.4	4514.1	4274.3	4205.2
11°	3962.9	3947.0	3781.0	3559.4	3581.6
12°	3307.6	3338.5	3145.5	2944.6	2948.5
13°	2769.0	2772.2	2606.2	2414.7	2403.6
14°	2267.0	2296.4	2154.2	1982.6	1950.9
15°	1859.5	1884.9	1778.5	1611.7	1579.1
16°	1488.6	1520.3	1444.1	1293.2	1250.3
17°	1198.6	1239.1	1189.1	1062.8	1013.6
18°	958.7	989.7	977.8	847.5	807.0
19°	757.0	799.9	803.1	694.2	645.8
20°	606.1	645.0	642.6	558.4	520.3
22.5°	347.9	368.6	369.4	329.6	307.4
25°	222.4	239.1	223.2	220.8	211.3
26°	193.0	206.5	189.0	189.0	180.3
27°	156.5	168.4	151.7	158.9	147.0
28°	131.9	144.6	130.3	128.7	127.1
29°	109.6	121.5	103.3	111.2	106.4
30°	95.3	104.1	93.7	105.6	90.6
32.5°	73.9	81.0	62.8	79.4	59.6
35°	43.7	48.5	38.9	45.3	31.0
37.5°	45.3	46.9	42.1	46.9	43.7
40°	27.0	27.8	34.2	34.2	23.8
42.5°	25.4	24.6	15.1	23.8	19.1
45°	6.4	18.3	10.3	18.3	9.5
47.5°	4.8	6.4	6.4	12.7	12.7
50°	1.6	6.4	2.4	4.8	3.2
52.5°	0.0	15.1	3.2	11.1	9.5
55°	12.7	18.3	11.1	16.7	17.5
57.5°	1.6	12.7	6.4	13.5	9.5
60°	15.9	21.4	12.7	23.0	20.7
62.5°	1.6	14.3	16.7	12.7	11.1
65°	6.4	13.5	16.7	15.9	15.9
67.5°	7.9	13.5	10.3	10.3	14.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
75°	1.6	5.6	4.0	7.1	11.1
77.5°	1.6	6.4	5.6	12.7	9.5
80°	12.7	14.3	17.5	23.0	15.9
82.5°	11.1	11.1	17.5	12.7	9.5
85°	0.0	0.0	4.0	4.0	4.8
87.5°	0.0	3.2	7.9	6.4	11.1
90°	0.0	0.0	0.0	0.0	0.0



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







70°	4.8	1.6	4.0	4.0	4.8
72.5°	1.6	7.1	6.4	4.0	7.9



(END OF REPORT)