

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: P282616

Luminaire Tested: **LDA2B209730D010 EU2B20SP159730 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P282616
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: LDA2B209730D010 EU2B20SP159730 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: 1482.8 lumens
Efficiency: N/A
Efficacy: 72.0 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

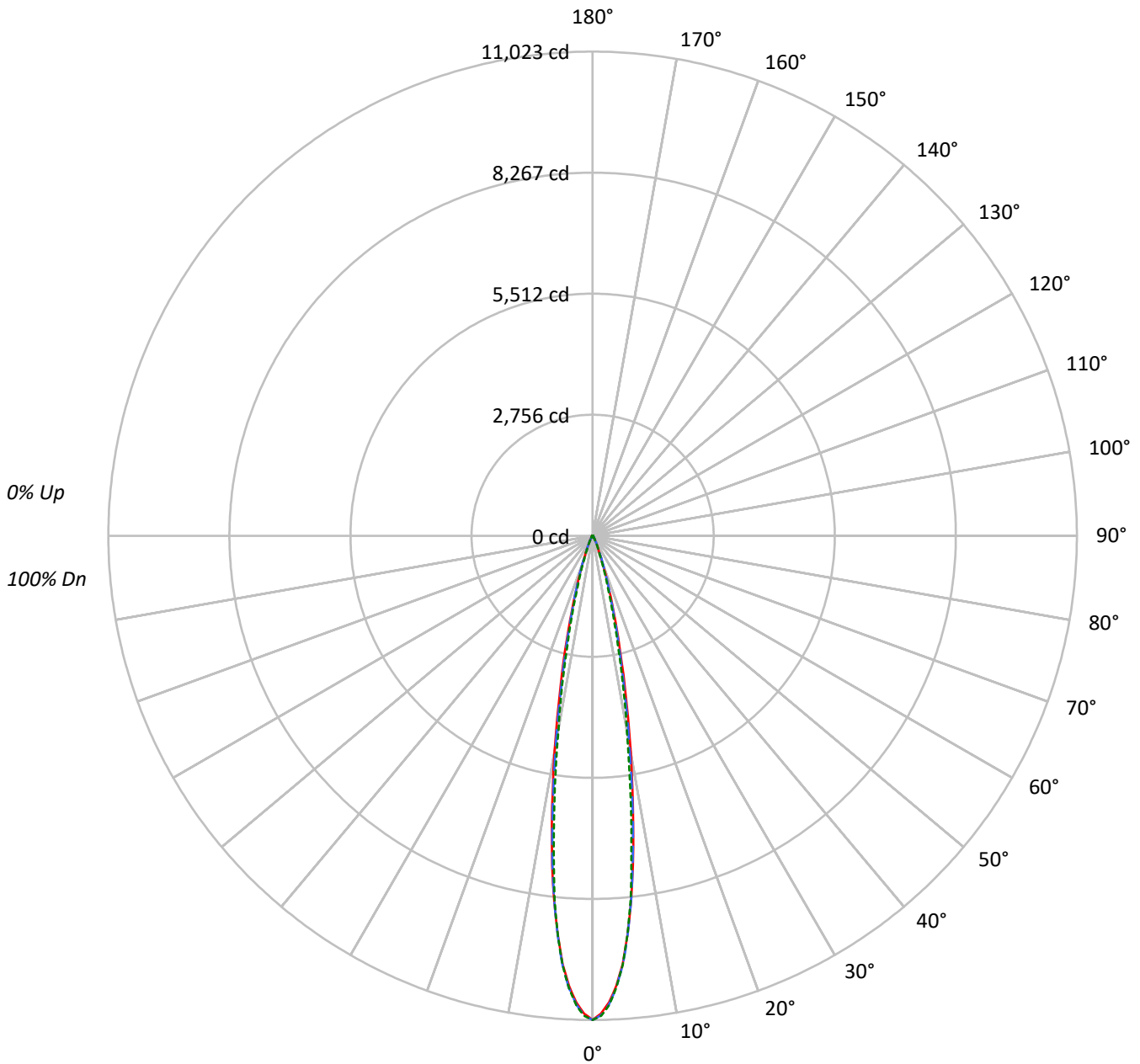
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P282616

CATALOG NUMBER: LDA2B209730D010 EU2B20SP159730 2LBALPINSQ1MMS

Luminous Intensity Polar Plot





TEST NUMBER: P282616

CATALOG NUMBER: LDA2B209730D010 EU2B20SP159730 2LBALPINSQ1MMS

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°	5438376	5438376	5438376
5°	4511694	4526304	4509168
10°	2497048	2406873	2242103
15°	1010856	966777	858393
20°	338641	359064	290706
25°	128851	129341	122428
30°	57766	56855	54918
35°	28006	24935	19875
40°	18484	23443	16359
45°	4744	7675	7047
50°	1305	1919	2610
55°	11612	10150	15999
60°	16676	13321	21708
65°	7938	20780	19729
70°	7357	6058	7357
75°	3241	8006	22493
80°	38356	52846	48016
85°	0	23775	28870



TEST NUMBER: P282616

CATALOG NUMBER: LDA2B209730D010 EU2B20SP159730 2LBALPINSQ1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	722.0	48.7
10°-20°	546.9	36.9
20°-30°	124.3	8.4
30°-40°	36.7	2.5
40°-50°	12.3	0.8
50°-60°	10.8	0.7
60°-70°	13.0	0.9
70°-80°	8.3	0.6
80°-90°	8.6	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°	1393.1	94.0
0°-40°	1429.9	96.4
0°-60°	1452.9	98.0
0°-90°	1482.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1482.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11023	11023	11023	11023	11023	
5°	9110	9182	9140	9020	9105	730
15°	1979	2006	1893	1715	1681	575
25°	237	254	238	235	225	124
35°	46	52	41	48	33	37
45°	7	19	11	19	10	10
55°	14	19	12	18	19	6
65°	7	14	18	17	17	7
75°	2	6	4	8	12	4
85°	0	0	4	4	5	5
90°	0	0	0	0	0	



TEST NUMBER: P282616

CATALOG NUMBER: LDA2B209730D010 EU2B20SP159730 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11023.1	11023.1	11023.1	11023.1	11023.1
1°	10881.0	10925.0	10920.8	10903.0	10934.3
2°	10630.8	10684.1	10679.0	10640.1	10695.9
3°	10263.9	10311.3	10303.6	10247.9	10308.7
4°	9773.6	9827.7	9806.6	9722.9	9800.6
5°	9110.0	9181.8	9139.5	9020.3	9104.9
6°	8374.5	8435.3	8368.5	8210.5	8293.3
7°	7551.0	7589.1	7501.2	7298.3	7242.5
8°	6652.4	6702.3	6579.7	6343.0	6282.1
9°	5793.5	5810.4	5661.6	5409.7	5332.7
10°	4984.4	4971.8	4804.4	4549.1	4475.5
11°	4217.7	4200.8	4024.1	3788.2	3811.9
12°	3520.2	3553.2	3347.8	3133.9	3138.1
13°	2947.0	2950.4	2773.7	2570.0	2558.2
14°	2412.8	2444.0	2292.7	2110.1	2076.3
15°	1979.1	2006.1	1892.8	1715.3	1680.6
16°	1584.3	1618.1	1536.9	1376.3	1330.6
17°	1275.7	1318.8	1265.6	1131.1	1078.7
18°	1020.4	1053.4	1040.7	902.0	858.9
19°	805.7	851.3	854.7	738.9	687.3
20°	645.0	686.5	683.9	594.3	553.7
22.5°	370.3	392.3	393.1	350.8	327.2
25°	236.7	254.5	237.6	235.0	224.9
26°	205.4	219.8	201.2	201.2	191.9
27°	166.5	179.2	161.5	169.1	156.4
28°	140.3	153.9	138.6	137.0	135.3
29°	116.7	129.3	109.9	118.4	113.3
30°	101.4	110.7	99.8	112.4	96.4
32.5°	78.6	86.2	66.8	84.5	63.4
35°	46.5	51.6	41.4	48.2	33.0
37.5°	48.2	49.9	44.8	49.9	46.5
40°	28.7	29.6	36.4	36.4	25.4
42.5°	27.1	26.2	16.1	25.4	20.3
45°	6.8	19.4	11.0	19.4	10.1
47.5°	5.1	6.8	6.8	13.5	13.5
50°	1.7	6.8	2.5	5.1	3.4
52.5°	0.0	16.1	3.4	11.8	10.1
55°	13.5	19.4	11.8	17.8	18.6
57.5°	1.7	13.5	6.8	14.4	10.1
60°	16.9	22.8	13.5	24.5	22.0
62.5°	1.7	15.2	17.8	13.5	11.8
65°	6.8	14.4	17.8	16.9	16.9
67.5°	8.5	14.4	11.0	11.0	15.2



TEST NUMBER: P282616

CATALOG NUMBER: LDA2B209730D010 EU2B20SP159730 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
75°	1.7	5.9	4.2	7.6	11.8
77.5°	1.7	6.8	5.9	13.5	10.1
80°	13.5	15.2	18.6	24.5	16.9
82.5°	11.8	11.8	18.6	13.5	10.1
85°	0.0	0.0	4.2	4.2	5.1
87.5°	0.0	3.4	8.5	6.8	11.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







70°	5.1	1.7	4.2	4.2	5.1
72.5°	1.7	7.6	6.8	4.2	8.5



(END OF REPORT)