

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: P282583

Luminaire Tested: **LDA2B208030D010 EU2B20SP158030 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P282583
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: LDA2B208030D010 EU2B20SP158030 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: 2002.8 lumens
Efficiency: N/A
Efficacy: 97.2 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

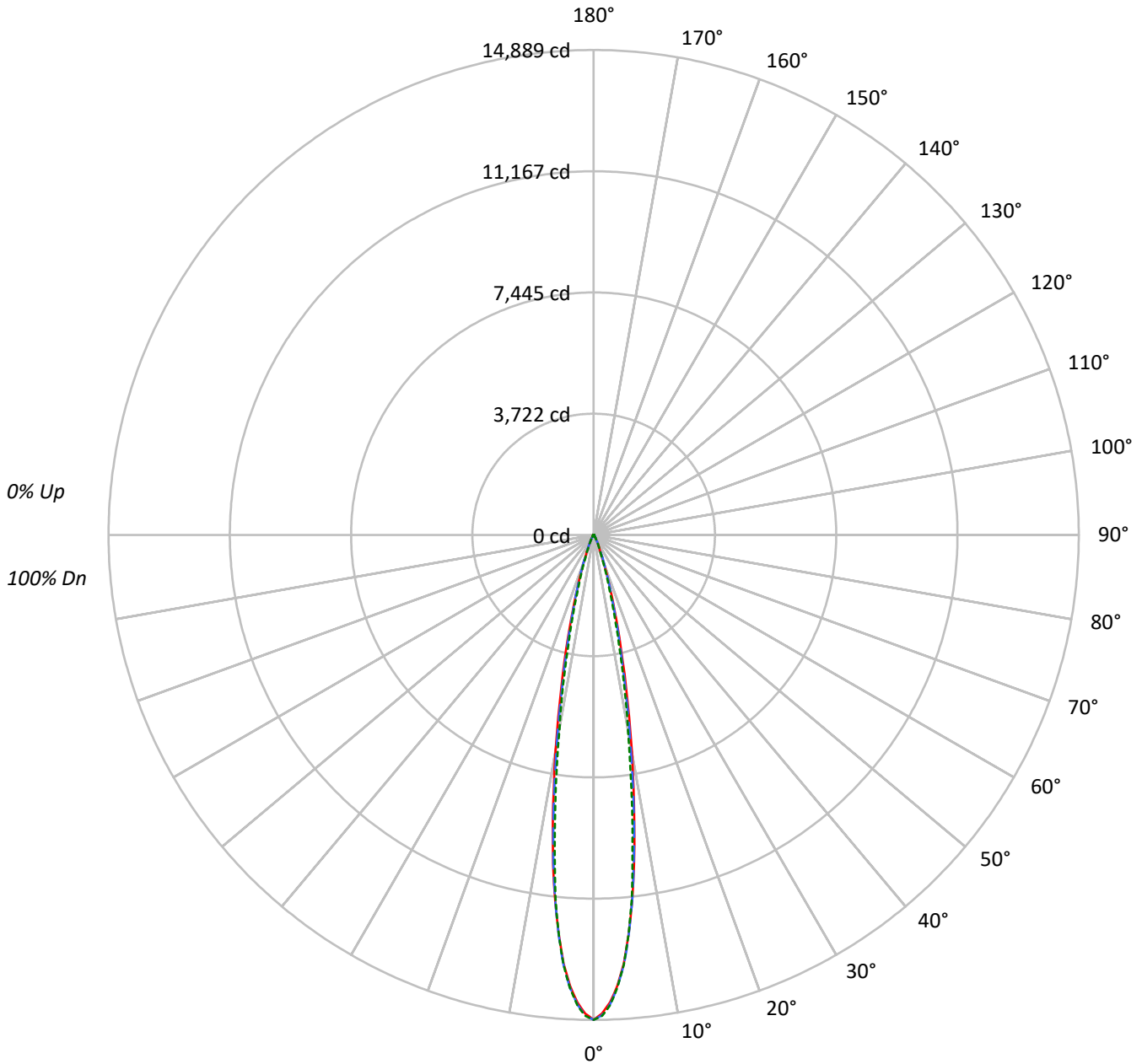
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P282583

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBALPINSQ1MMS

Luminous Intensity Polar Plot





TEST NUMBER: P282583

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 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	96	98	96	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	94	96	94	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	94	92	90	89															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	92	89	88	87															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	90	88	86	85															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	88	86	84	83															
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°	7345466	7345466	7345466
5°	6093808	6113569	6090391
10°	3372698	3250862	3028330
15°	1365328	1305824	1159438
20°	457401	485018	392666
25°	174033	174687	165323
30°	78047	76737	74173
35°	37823	33728	26802
40°	24989	31622	22091
45°	6349	10326	9559
50°	1765	2610	3531
55°	15741	13762	21590
60°	22497	18057	29306
65°	10623	28017	26617
70°	9953	8222	9953
75°	4384	10865	30499
80°	51993	71313	64778
85°	0	32266	39059



TEST NUMBER: P282583

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBALPINSQ1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	975.1	48.7
10°-20°	738.6	36.9
20°-30°	167.9	8.4
30°-40°	49.6	2.5
40°-50°	16.5	0.8
50°-60°	14.6	0.7
60°-70°	17.5	0.9
70°-80°	11.2	0.6
80°-90°	11.7	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°	1881.7	94.0
0°-40°	1931.3	96.4
0°-60°	1962.4	98.0
0°-90°	2002.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2002.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14889	14889	14889	14889	14889	
5°	12305	12402	12344	12184	12298	987
15°	2673	2710	2557	2317	2270	777
25°	320	344	321	317	304	167
35°	63	70	56	65	44	49
45°	9	26	15	26	14	14
55°	18	26	16	24	25	8
65°	9	19	24	23	23	9
75°	2	8	6	10	16	5
85°	0	0	6	6	7	7
90°	0	0	0	0	0	



TEST NUMBER: P282583

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14888.6	14888.6	14888.6	14888.6	14888.6
1°	14696.7	14756.1	14750.4	14726.4	14768.7
2°	14358.7	14430.7	14423.8	14371.3	14446.7
3°	13863.2	13927.1	13916.8	13841.5	13923.7
4°	13200.9	13274.0	13245.4	13132.4	13237.4
5°	12304.6	12401.6	12344.5	12183.5	12297.7
6°	11311.1	11393.4	11303.2	11089.6	11201.5
7°	10199.0	10250.4	10131.6	9857.6	9782.2
8°	8985.2	9052.6	8887.0	8567.3	8485.1
9°	7825.1	7847.9	7647.0	7306.7	7202.8
10°	6732.3	6715.2	6489.1	6144.3	6044.9
11°	5696.7	5673.8	5435.2	5116.6	5148.6
12°	4754.7	4799.2	4521.7	4232.8	4238.5
13°	3980.5	3985.1	3746.4	3471.2	3455.2
14°	3258.8	3301.1	3096.7	2850.1	2804.4
15°	2673.1	2709.6	2556.6	2316.8	2270.0
16°	2139.8	2185.5	2075.9	1858.9	1797.3
17°	1723.0	1781.3	1709.3	1527.8	1457.0
18°	1378.2	1422.7	1405.6	1218.4	1160.1
19°	1088.2	1149.8	1154.4	998.0	928.3
20°	871.2	927.2	923.8	802.7	747.9
22.5°	500.1	529.8	531.0	473.9	441.9
25°	319.7	343.7	320.9	317.4	303.7
26°	277.5	296.9	271.8	271.8	259.2
27°	224.9	242.1	218.1	228.4	211.2
28°	189.5	207.8	187.3	185.0	182.7
29°	157.6	174.7	148.4	159.9	153.0
30°	137.0	149.6	134.7	151.9	130.2
32.5°	106.2	116.5	90.2	114.2	85.6
35°	62.8	69.7	56.0	65.1	44.5
37.5°	65.1	67.4	60.5	67.4	62.8
40°	38.8	40.0	49.1	49.1	34.3
42.5°	36.5	35.4	21.7	34.3	27.4
45°	9.1	26.3	14.8	26.3	13.7
47.5°	6.9	9.1	9.1	18.3	18.3
50°	2.3	9.1	3.4	6.9	4.6
52.5°	0.0	21.7	4.6	16.0	13.7
55°	18.3	26.3	16.0	24.0	25.1
57.5°	2.3	18.3	9.1	19.4	13.7
60°	22.8	30.8	18.3	33.1	29.7
62.5°	2.3	20.6	24.0	18.3	16.0
65°	9.1	19.4	24.0	22.8	22.8
67.5°	11.4	19.4	14.8	14.8	20.6



TEST NUMBER: P282583

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
75°	2.3	8.0	5.7	10.3	16.0
77.5°	2.3	9.1	8.0	18.3	13.7
80°	18.3	20.6	25.1	33.1	22.8
82.5°	16.0	16.0	25.1	18.3	13.7
85°	0.0	0.0	5.7	5.7	6.9
87.5°	0.0	4.6	11.4	9.1	16.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







70°	6.9	2.3	5.7	5.7	6.9
72.5°	2.3	10.3	9.1	5.7	11.4



(END OF REPORT)