

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: P283771

Luminaire Tested: **LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-15)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MMS

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1391.4 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 0.55 / 0.55
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

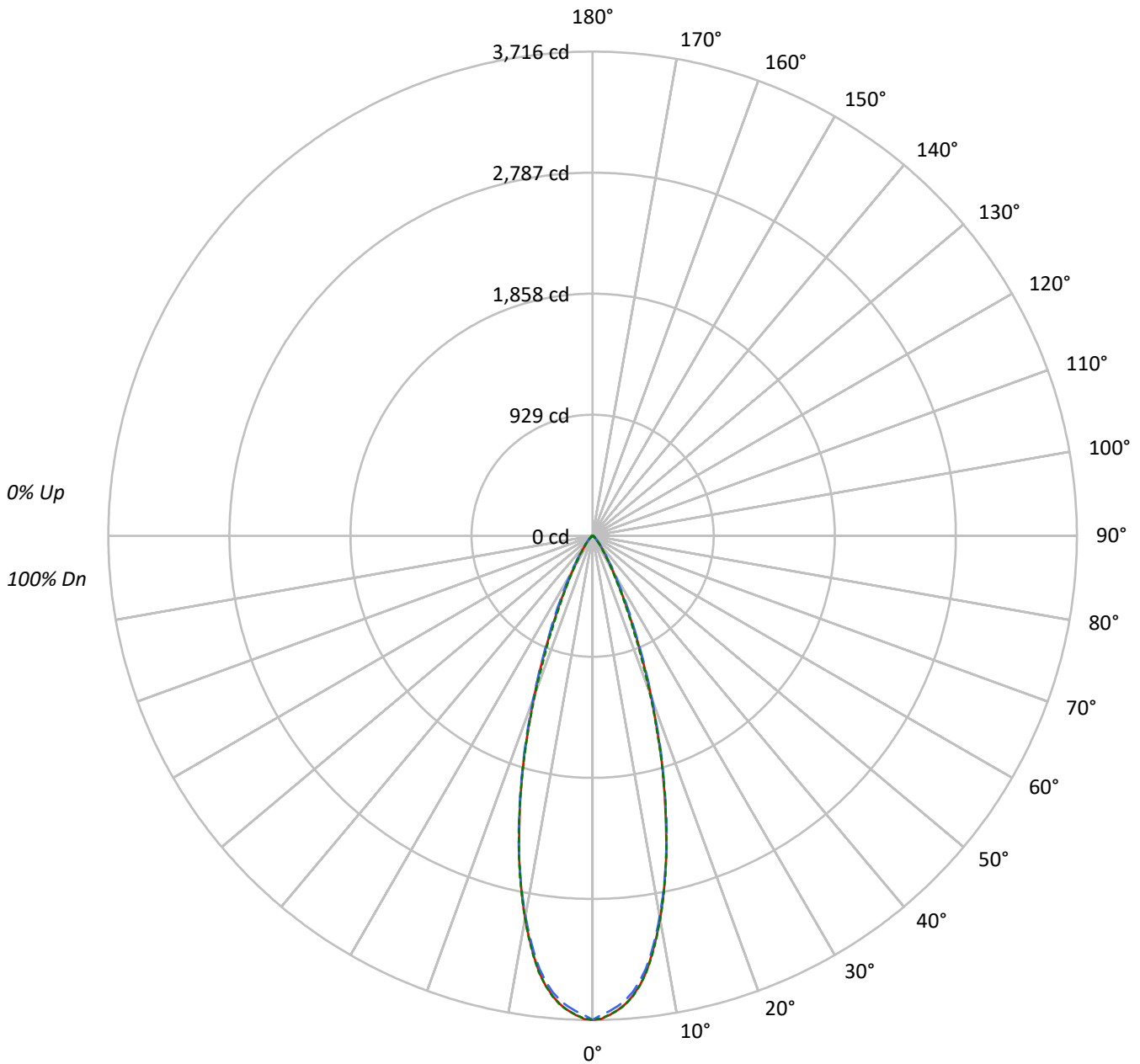
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P283771

CATALOG NUMBER: LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MMS

Luminous Intensity Polar Plot





TEST NUMBER: P283771

CATALOG NUMBER: LDA2B209040D010 EU2B20FL409040 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																			
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95																			
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90																			
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86																			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82																			
5	98	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	79																			
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75																			
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72																			
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69																			
9	84	77	72	69	83	76	72	68	75	71	68	74	71	68	74	70	68	67																			
10	82	74	69	66	81	73	69	66	73	69	66	72	68	65	71	68	65	64																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1833184	1833184	1833184
5°	1754361	1741237	1757085
10°	1494652	1485284	1496205
15°	1101619	1108821	1105195
20°	687730	700435	672557
25°	355252	381164	337397
30°	170336	195231	162303
35°	87933	97329	82272
40°	49269	51781	46757
45°	29932	29932	28886
50°	15581	19188	15581
55°	8085	12730	8688
60°	9275	9275	9275
65°	10040	10040	10040
70°	12405	11251	12405
75°	11818	11818	11818
80°	11081	11081	11081
85°	9057	9057	9057



TEST NUMBER: P283771

CATALOG NUMBER: LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.6	23.0
10°-20°	587.1	42.2
20°-30°	318.3	22.9
30°-40°	102.2	7.3
40°-50°	34.8	2.5
50°-60°	12.2	0.9
60°-70°	8.9	0.6
70°-80°	6.5	0.5
80°-90°	1.9	0.1
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°	1224.9	88.0
0°-40°	1327.1	95.4
0°-60°	1374.1	98.8
0°-90°	1391.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1391.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3716	3716	3716	3716	3716	
5°	3542	3520	3516	3551	3548	320
15°	2157	2175	2171	2181	2164	585
25°	653	682	700	652	620	313
35°	146	152	162	147	137	98
45°	43	44	43	43	41	34
55°	9	12	15	12	10	10
65°	9	9	9	9	9	9
75°	6	6	6	6	6	7
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



TEST NUMBER: P283771

CATALOG NUMBER: LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3715.7	3715.7	3715.7	3715.7	3715.7
1°	3709.5	3682.9	3679.0	3713.4	3705.5
2°	3679.8	3654.8	3650.9	3685.3	3678.2
3°	3647.0	3624.4	3616.6	3652.5	3647.8
4°	3603.3	3582.2	3575.2	3611.1	3607.2
5°	3542.4	3520.5	3515.9	3551.0	3547.9
6°	3467.5	3449.5	3440.9	3476.1	3469.8
7°	3373.8	3357.4	3348.0	3373.8	3376.9
8°	3252.0	3244.2	3233.3	3259.0	3259.0
9°	3122.4	3115.4	3103.7	3127.1	3127.1
10°	2983.5	2978.8	2964.8	2986.6	2986.6
11°	2831.3	2828.9	2818.8	2836.7	2836.7
12°	2671.2	2676.7	2667.3	2683.0	2677.5
13°	2511.2	2508.9	2509.7	2521.4	2512.8
14°	2330.1	2344.2	2346.5	2353.5	2340.3
15°	2156.8	2174.8	2170.9	2181.0	2163.8
16°	1979.6	1999.9	1999.1	2001.5	1985.1
17°	1814.1	1825.8	1826.6	1824.3	1804.0
18°	1637.7	1654.1	1654.1	1650.2	1626.0
19°	1465.2	1477.7	1486.3	1477.7	1449.6
20°	1309.9	1318.4	1334.1	1312.2	1281.0
21°	1160.8	1168.6	1181.8	1156.1	1121.7
22°	1017.9	1028.1	1040.6	1010.9	975.0
23°	884.4	907.8	912.5	871.9	841.5
24°	761.9	788.4	796.2	754.8	722.8
25°	652.6	682.3	700.2	651.8	619.8
26°	558.1	587.0	608.9	560.5	530.0
27°	475.4	505.8	528.5	483.2	454.3
28°	404.4	434.0	457.4	415.3	388.0
29°	351.3	368.4	391.9	356.7	331.8
30°	299.0	317.7	342.7	306.8	284.9
32.5°	205.3	215.4	235.0	213.1	195.9
35°	146.0	152.2	161.6	146.8	136.6
37.5°	103.8	106.9	112.4	103.8	98.4
40°	76.5	78.1	80.4	75.7	72.6
42.5°	57.0	57.8	57.8	56.2	54.6
45°	42.9	43.7	42.9	42.9	41.4
47.5°	31.2	33.6	32.8	32.8	30.4
50°	20.3	25.0	25.0	24.2	20.3
52.5°	12.5	17.2	19.5	17.2	13.3
55°	9.4	11.7	14.8	11.7	10.1
57.5°	9.4	9.4	10.9	9.4	9.4
60°	9.4	9.4	9.4	9.4	9.4



TEST NUMBER: P283771

CATALOG NUMBER: LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
67.5°	8.6	8.6	8.6	8.6	8.6
70°	8.6	8.6	7.8	8.6	8.6
72.5°	7.8	7.8	7.0	7.8	7.0
75°	6.2	6.2	6.2	6.2	6.2
77.5°	4.7	4.7	4.7	4.7	4.7
80°	3.9	3.9	3.9	3.9	3.9
82.5°	2.3	2.3	2.3	3.1	2.3
85°	1.6	1.6	1.6	1.6	1.6
87.5°	0.8	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







62.5°	9.4	9.4	9.4	9.4	9.4
65°	8.6	9.4	8.6	9.4	8.6



(END OF REPORT)