

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: P251872

Luminaire Tested: **LD4B40D010 EU4B30508050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251872  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-14)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B40D010 EU4B30508050 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3821.0 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct

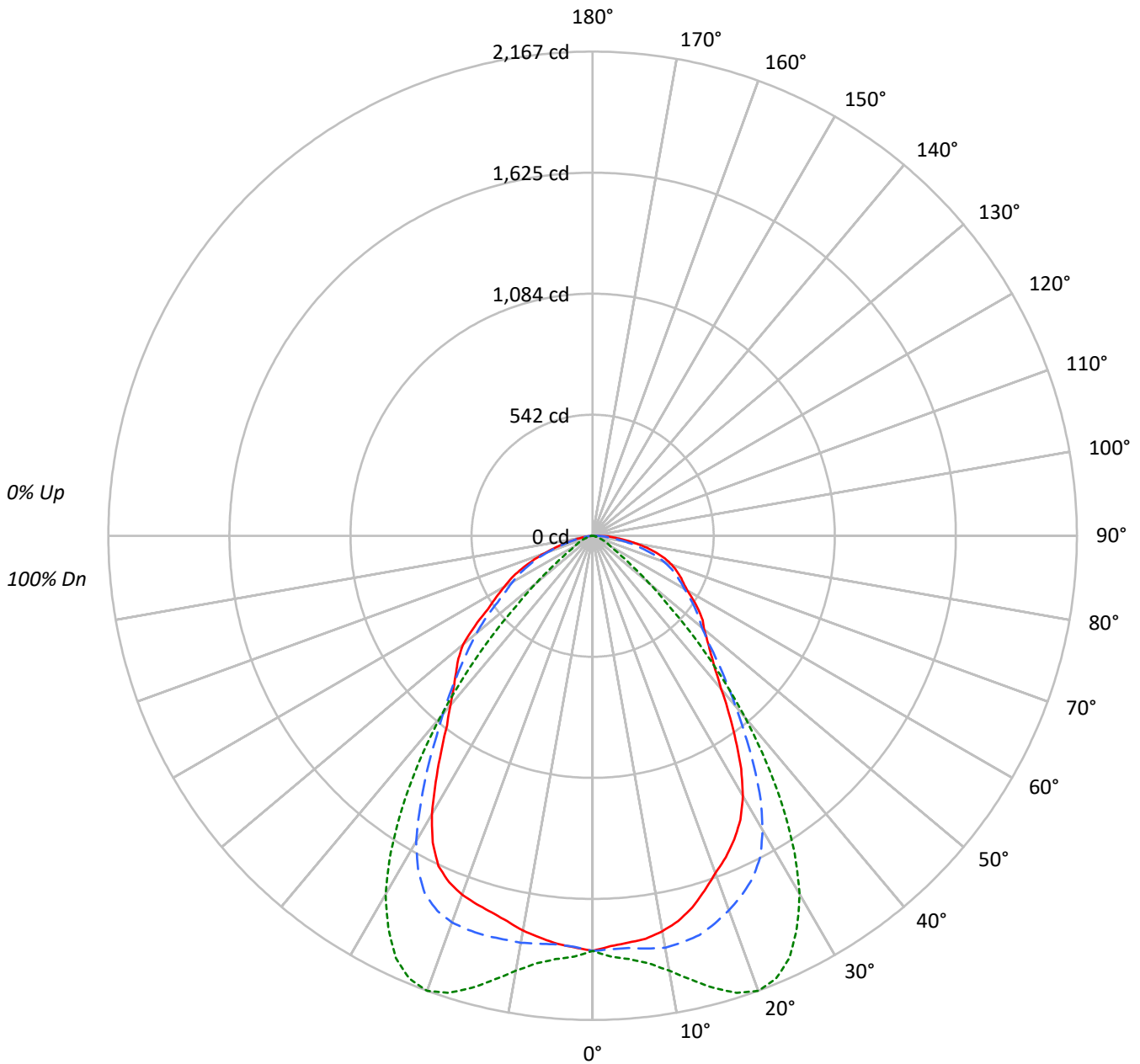
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	463	463	463
5°	457	476	458
10°	455	500	454
15°	444	540	450
20°	426	575	453
25°	412	573	449
30°	387	533	414
35°	339	452	359
40°	291	345	321
45°	264	227	304
50°	253	127	293
55°	252	68	248
60°	243	45	227
65°	256	37	207
70°	273	26	169
75°	287	19	117
80°	281	12	75
85°	292	8	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.9	4.7
10°-20°	532.4	13.9
20°-30°	812.1	21.3
30°-40°	810.6	21.2
40°-50°	597.7	15.6
50°-60°	408.4	10.7
60°-70°	288.3	7.5
70°-80°	154.0	4.0
80°-90°	39.5	1.0
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°	1522.5	39.8
0°-40°	2333.1	61.1
0°-60°	3339.2	87.4
0°-90°	3821.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3821.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1858	1858	1858	1858	1858	
5°	1828	1852	1902	1836	1833	174
15°	1723	1850	2095	1852	1745	483
25°	1499	1692	2084	1772	1632	687
35°	1115	1259	1485	1295	1182	697
45°	748	784	643	839	864	584
55°	580	558	157	519	572	515
65°	433	411	64	318	351	428
75°	298	243	19	110	122	309
85°	102	66	3	14	0	113
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1857.9	1857.9	1857.9	1857.9	1857.9	1857.9	1857.9	1857.9	1857.9
2.5°	1838.6	1849.6	1852.4	1871.7	1885.5	1869.0	1841.4	1841.4	1844.1
5°	1827.6	1841.4	1852.4	1885.5	1902.1	1874.5	1835.8	1830.3	1833.1
7.5°	1819.3	1838.6	1863.4	1913.1	1929.7	1893.8	1841.4	1819.3	1813.8
10°	1797.2	1824.8	1871.7	1943.5	1976.6	1932.5	1849.6	1808.2	1794.4
12.5°	1766.8	1799.9	1863.4	1976.6	2034.6	1968.3	1849.6	1788.9	1766.8
15°	1722.7	1758.5	1849.6	2004.2	2095.3	2007.0	1852.4	1769.6	1744.7
17.5°	1664.7	1708.8	1819.3	2018.0	2145.0	2042.9	1849.6	1755.8	1728.2
20°	1606.7	1659.2	1783.4	2018.0	2167.1	2056.7	1841.4	1742.0	1708.8
22.5°	1557.0	1609.5	1742.0	1993.2	2145.0	2040.1	1816.5	1717.1	1678.5
25°	1499.0	1554.3	1692.3	1940.7	2084.3	1990.4	1772.3	1667.4	1631.5
27.5°	1432.8	1493.5	1623.3	1857.9	1979.4	1899.3	1689.5	1587.4	1548.7
30°	1344.4	1399.7	1521.1	1739.2	1852.4	1775.1	1579.1	1474.2	1438.3
32.5°	1236.8	1286.5	1399.7	1595.7	1681.2	1617.7	1435.5	1347.2	1305.8
35°	1115.3	1159.5	1258.9	1413.5	1485.2	1446.6	1294.7	1211.9	1181.6
37.5°	1002.1	1035.2	1118.1	1231.3	1275.4	1250.6	1156.7	1096.0	1071.1
40°	894.5	927.6	993.8	1049.1	1060.1	1068.4	1040.8	1002.1	988.3
42.5°	811.6	842.0	883.4	877.9	844.8	891.7	935.9	930.3	919.3
45°	748.1	770.2	784.0	701.2	643.2	720.5	839.2	869.6	864.1
47.5°	695.7	706.7	698.4	560.4	455.5	560.4	753.7	814.4	814.4
50°	651.5	659.8	637.7	466.6	328.5	450.0	679.1	745.4	756.4
52.5°	621.1	623.9	596.3	394.8	226.4	356.1	599.1	657.0	665.3
55°	579.7	582.5	557.7	342.3	157.4	281.6	519.0	571.5	571.5
57.5°	532.8	538.3	513.5	298.2	110.4	234.7	458.3	508.0	510.7
60°	488.6	491.4	474.8	265.0	91.1	201.5	414.1	455.5	455.5
62.5°	458.3	461.0	441.7	245.7	77.3	176.7	367.2	405.8	408.6
65°	433.4	433.4	411.3	226.4	63.5	149.1	317.5	350.6	350.6
67.5°	405.8	400.3	378.2	201.5	49.7	121.5	267.8	292.6	289.9
70°	375.4	367.2	339.6	173.9	35.9	96.6	209.8	229.1	231.9
72.5°	339.6	328.5	292.6	143.6	27.6	71.8	154.6	171.2	171.2
75°	298.2	284.3	242.9	113.2	19.3	49.7	110.4	121.5	121.5
77.5°	248.5	234.7	193.2	82.8	13.8	33.1	74.5	82.8	82.8
80°	196.0	182.2	143.6	58.0	8.3	19.3	46.9	55.2	52.5
82.5°	146.3	132.5	96.6	35.9	5.5	11.0	30.4	30.4	27.6
85°	102.1	93.9	66.3	22.1	2.8	5.5	13.8	5.5	0.0
87.5°	69.0	60.7	41.4	11.0	0.0	2.8	2.8	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)