

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: P251889

Luminaire Tested: **LD4B50D010TE EU4B30509035 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251889
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: LD4B50D010TE EU4B30509035 4LBDW1LI
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4067.0 lumens
Efficiency: N/A
Efficacy: 69.2 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

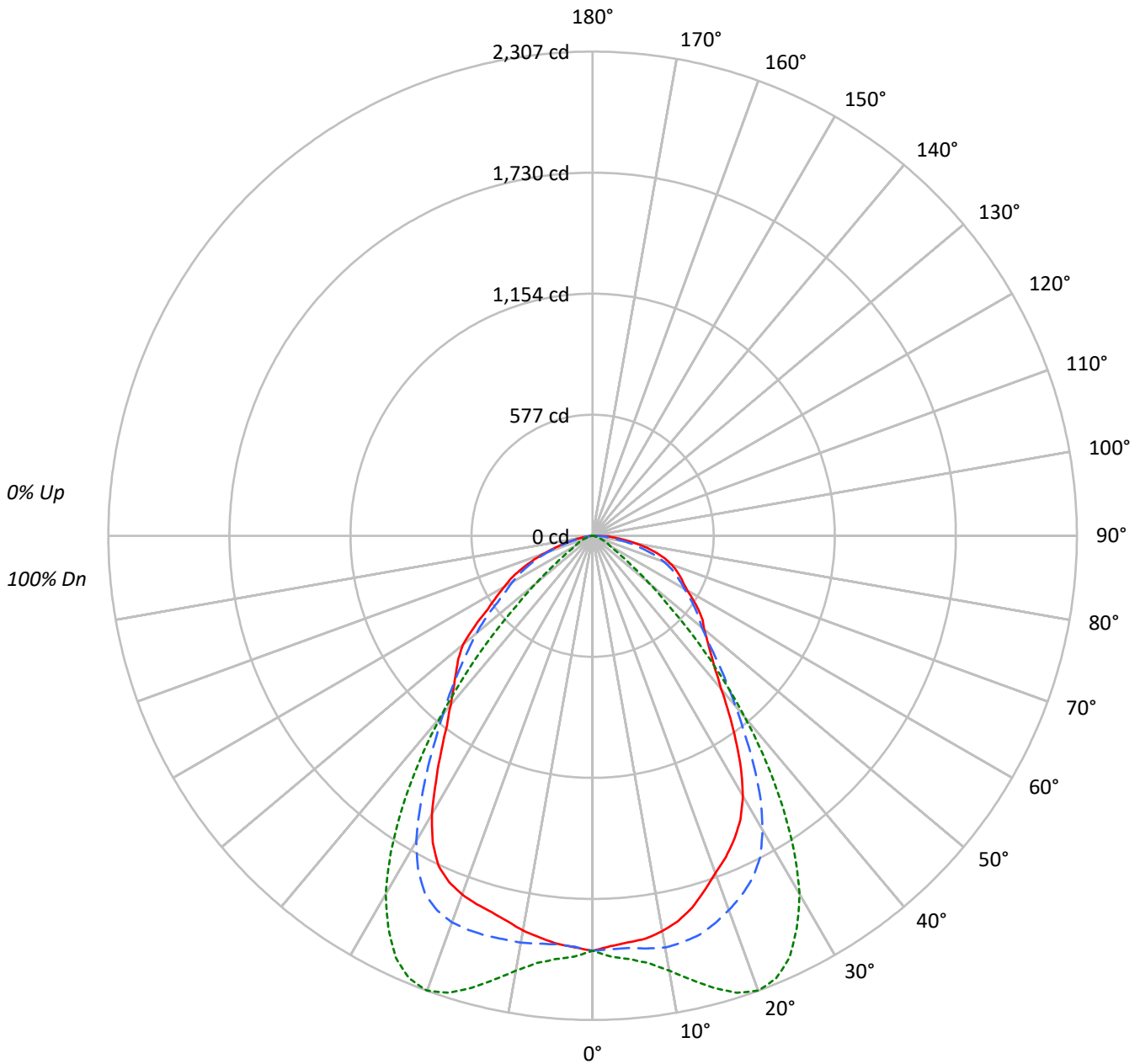
Input Watts (W): 58.77
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	493	493	493
5°	487	506	488
10°	484	532	483
15°	473	575	479
20°	453	612	482
25°	439	610	477
30°	412	567	440
35°	361	481	383
40°	310	367	342
45°	281	241	324
50°	269	136	312
55°	268	73	264
60°	259	48	242
65°	272	40	220
70°	291	28	180
75°	305	20	124
80°	299	13	80
85°	311	8	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.4	4.7
10°-20°	566.7	13.9
20°-30°	864.4	21.3
30°-40°	862.8	21.2
40°-50°	636.2	15.6
50°-60°	434.7	10.7
60°-70°	306.9	7.5
70°-80°	163.9	4.0
80°-90°	42.1	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°	1620.5	39.8
0°-40°	2483.3	61.1
0°-60°	3554.2	87.4
0°-90°	4067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4067.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1978	1978	1978	1978	1978	
5°	1945	1972	2025	1954	1951	185
15°	1834	1969	2230	1972	1857	514
25°	1596	1801	2218	1886	1737	731
35°	1187	1340	1581	1378	1258	742
45°	796	834	685	893	920	621
55°	617	594	168	552	608	548
65°	461	438	68	338	373	456
75°	317	259	21	118	129	329
85°	109	70	3	15	0	120
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°	1977.5	1977.5	1977.5	1977.5	1977.5	1977.5	1977.5	1977.5	1977.5
2.5°	1957.0	1968.7	1971.7	1992.2	2006.9	1989.3	1959.9	1959.9	1962.8
5°	1945.2	1959.9	1971.7	2006.9	2024.6	1995.2	1954.0	1948.2	1951.1
7.5°	1936.4	1957.0	1983.4	2036.3	2053.9	2015.7	1959.9	1936.4	1930.5
10°	1912.9	1942.3	1992.2	2068.6	2103.9	2056.9	1968.7	1924.6	1910.0
12.5°	1880.6	1915.8	1983.4	2103.9	2165.6	2095.1	1968.7	1904.1	1880.6
15°	1833.6	1871.8	1968.7	2133.3	2230.2	2136.2	1971.7	1883.5	1857.1
17.5°	1771.9	1818.9	1936.4	2148.0	2283.1	2174.4	1968.7	1868.8	1839.4
20°	1710.1	1766.0	1898.2	2148.0	2306.6	2189.1	1959.9	1854.1	1818.9
22.5°	1657.3	1713.1	1854.1	2121.5	2283.1	2171.5	1933.5	1827.7	1786.5
25°	1595.5	1654.3	1801.2	2065.7	2218.5	2118.6	1886.4	1774.8	1736.6
27.5°	1525.0	1589.7	1727.8	1977.5	2106.8	2021.6	1798.3	1689.6	1648.4
30°	1431.0	1489.8	1619.1	1851.2	1971.7	1889.4	1680.8	1569.1	1530.9
32.5°	1316.4	1369.3	1489.8	1698.4	1789.5	1721.9	1528.0	1433.9	1389.9
35°	1187.1	1234.1	1339.9	1504.5	1580.9	1539.7	1378.1	1290.0	1257.6
37.5°	1066.6	1101.9	1190.0	1310.5	1357.5	1331.1	1231.2	1166.5	1140.1
40°	952.0	987.3	1057.8	1116.6	1128.3	1137.2	1107.8	1066.6	1051.9
42.5°	863.9	896.2	940.3	934.4	899.1	949.1	996.1	990.2	978.5
45°	796.3	819.8	834.5	746.4	684.6	766.9	893.3	925.6	919.7
47.5°	740.5	752.2	743.4	596.5	484.8	596.5	802.2	866.8	866.8
50°	693.5	702.3	678.8	496.6	349.7	479.0	722.8	793.4	805.1
52.5°	661.1	664.1	634.7	420.2	240.9	379.1	637.6	699.3	708.2
55°	617.1	620.0	593.6	364.4	167.5	299.7	552.4	608.2	608.2
57.5°	567.1	573.0	546.5	317.3	117.5	249.8	487.8	540.7	543.6
60°	520.1	523.0	505.4	282.1	97.0	214.5	440.8	484.8	484.8
62.5°	487.8	490.7	470.1	261.5	82.3	188.1	390.8	431.9	434.9
65°	461.3	461.3	437.8	240.9	67.6	158.7	337.9	373.2	373.2
67.5°	431.9	426.1	402.6	214.5	52.9	129.3	285.0	311.5	308.5
70°	399.6	390.8	361.4	185.1	38.2	102.8	223.3	243.9	246.8
72.5°	361.4	349.7	311.5	152.8	29.4	76.4	164.5	182.2	182.2
75°	317.3	302.7	258.6	120.5	20.6	52.9	117.5	129.3	129.3
77.5°	264.5	249.8	205.7	88.2	14.7	35.3	79.3	88.2	88.2
80°	208.6	193.9	152.8	61.7	8.8	20.6	50.0	58.8	55.8
82.5°	155.7	141.0	102.8	38.2	5.9	11.8	32.3	32.3	29.4
85°	108.7	99.9	70.5	23.5	2.9	5.9	14.7	5.9	0.0
87.5°	73.5	64.6	44.1	11.8	0.0	2.9	2.9	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)