

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: P251880

Luminaire Tested: **LD4B40D010 EU4B30509730 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251880
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 EU4B30509730 4LBDW1LI
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2756.0 lumens
Efficiency: N/A
Efficacy: 64.1 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

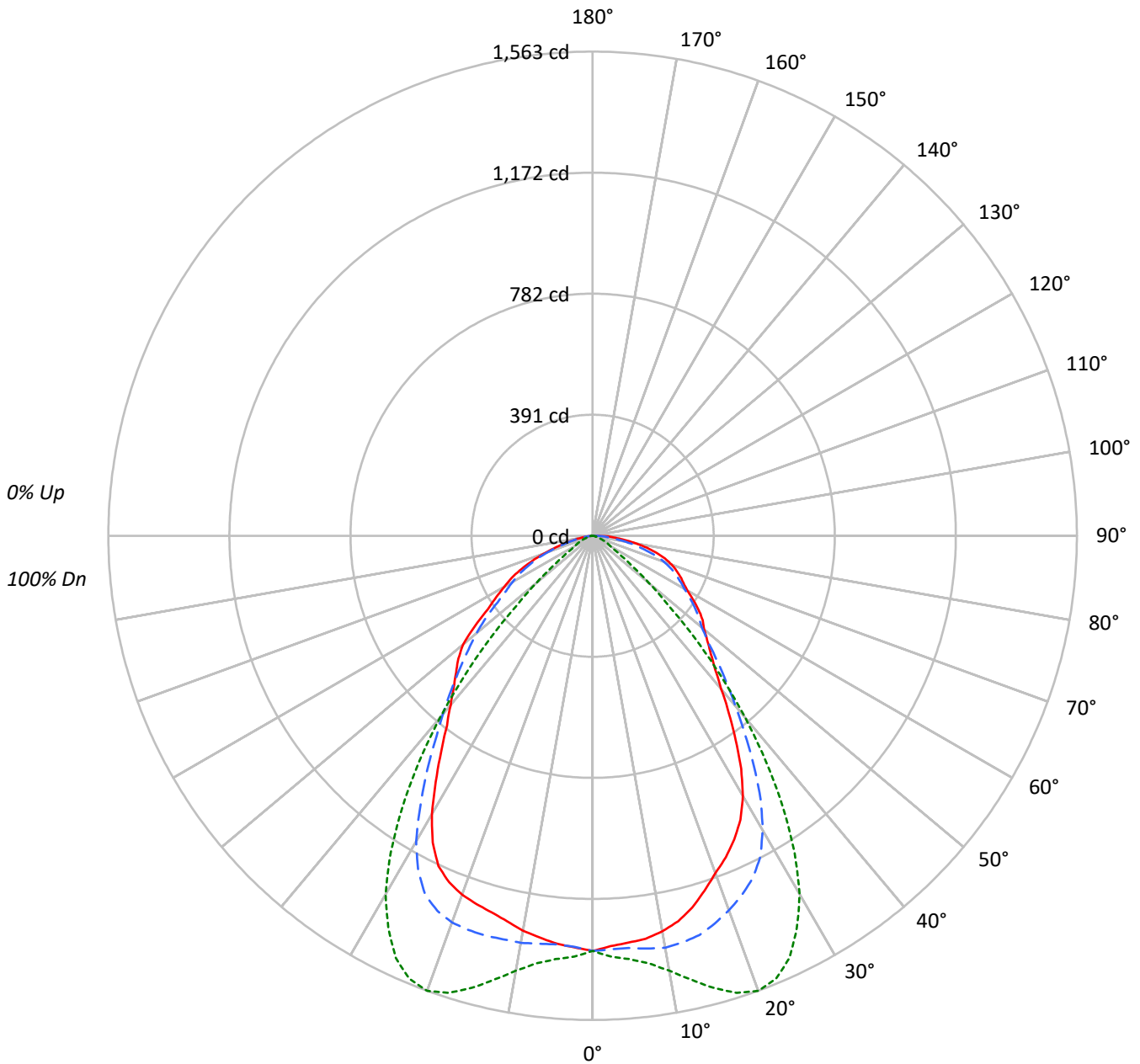
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	334	334	334
5°	330	343	331
10°	328	361	327
15°	320	390	325
20°	307	414	327
25°	297	413	324
30°	279	384	298
35°	245	326	259
40°	210	249	232
45°	190	163	220
50°	182	92	211
55°	182	49	179
60°	176	33	164
65°	184	27	149
70°	197	19	122
75°	207	13	84
80°	203	9	54
85°	211	6	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	4.7
10°-20°	384.0	13.9
20°-30°	585.8	21.3
30°-40°	584.7	21.2
40°-50°	431.1	15.6
50°-60°	294.6	10.7
60°-70°	207.9	7.5
70°-80°	111.1	4.0
80°-90°	28.5	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°	1098.1	39.8
0°-40°	1682.8	61.1
0°-60°	2408.5	87.4
0°-90°	2756.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2756.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1340	1340	1340	1340	1340	
5°	1318	1336	1372	1324	1322	125
15°	1242	1334	1511	1336	1258	348
25°	1081	1221	1503	1278	1177	495
35°	804	908	1071	934	852	503
45°	540	566	464	605	623	421
55°	418	402	114	374	412	372
65°	313	297	46	229	253	309
75°	215	175	14	80	88	223
85°	74	48	2	10	0	82
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°	1340.1	1340.1	1340.1	1340.1	1340.1	1340.1	1340.1	1340.1	1340.1
2.5°	1326.1	1334.1	1336.1	1350.0	1360.0	1348.0	1328.1	1328.1	1330.1
5°	1318.2	1328.1	1336.1	1360.0	1371.9	1352.0	1324.1	1320.2	1322.2
7.5°	1312.2	1326.1	1344.1	1379.9	1391.8	1366.0	1328.1	1312.2	1308.2
10°	1296.3	1316.2	1350.0	1401.8	1425.7	1393.8	1334.1	1304.2	1294.3
12.5°	1274.4	1298.3	1344.1	1425.7	1467.5	1419.7	1334.1	1290.3	1274.4
15°	1242.5	1268.4	1334.1	1445.6	1511.3	1447.6	1336.1	1276.4	1258.4
17.5°	1200.7	1232.6	1312.2	1455.6	1547.2	1473.5	1334.1	1266.4	1246.5
20°	1158.9	1196.7	1286.3	1455.6	1563.1	1483.4	1328.1	1256.4	1232.6
22.5°	1123.0	1160.9	1256.4	1437.6	1547.2	1471.5	1310.2	1238.5	1210.6
25°	1081.2	1121.0	1220.6	1399.8	1503.4	1435.7	1278.4	1202.7	1176.8
27.5°	1033.4	1077.2	1170.8	1340.1	1427.7	1369.9	1218.6	1144.9	1117.1
30°	969.7	1009.5	1097.2	1254.5	1336.1	1280.3	1139.0	1063.3	1037.4
32.5°	892.1	927.9	1009.5	1150.9	1212.6	1166.8	1035.4	971.7	941.8
35°	804.4	836.3	908.0	1019.5	1071.3	1043.4	933.9	874.1	852.2
37.5°	722.8	746.7	806.4	888.1	919.9	902.0	834.3	790.5	772.6
40°	645.1	669.0	716.8	756.7	764.6	770.6	750.7	722.8	712.8
42.5°	585.4	607.3	637.2	633.2	609.3	643.2	675.0	671.0	663.1
45°	539.6	555.5	565.5	505.8	463.9	519.7	605.3	627.2	623.2
47.5°	501.8	509.7	503.8	404.2	328.5	404.2	543.6	587.4	587.4
50°	469.9	475.9	460.0	336.5	237.0	324.6	489.8	537.6	545.6
52.5°	448.0	450.0	430.1	284.7	163.3	256.9	432.1	473.9	479.9
55°	418.2	420.1	402.2	246.9	113.5	203.1	374.3	412.2	412.2
57.5°	384.3	388.3	370.4	215.0	79.6	169.3	330.5	366.4	368.4
60°	352.4	354.4	342.5	191.2	65.7	145.4	298.7	328.5	328.5
62.5°	330.5	332.5	318.6	177.2	55.8	127.4	264.8	292.7	294.7
65°	312.6	312.6	296.7	163.3	45.8	107.5	229.0	252.9	252.9
67.5°	292.7	288.7	272.8	145.4	35.8	87.6	193.1	211.1	209.1
70°	270.8	264.8	244.9	125.4	25.9	69.7	151.3	165.3	167.3
72.5°	244.9	237.0	211.1	103.5	19.9	51.8	111.5	123.5	123.5
75°	215.0	205.1	175.2	81.6	13.9	35.8	79.6	87.6	87.6
77.5°	179.2	169.3	139.4	59.7	10.0	23.9	53.8	59.7	59.7
80°	141.4	131.4	103.5	41.8	6.0	13.9	33.9	39.8	37.8
82.5°	105.5	95.6	69.7	25.9	4.0	8.0	21.9	21.9	19.9
85°	73.7	67.7	47.8	15.9	2.0	4.0	10.0	4.0	0.0
87.5°	49.8	43.8	29.9	8.0	0.0	2.0	2.0	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)