

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: P251859

Luminaire Tested: **LD4B30D010 EU4B30508050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251859  
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: LD4B30D010 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: 2728.0 lumens  
Efficiency: N/A  
Efficacy: 97.4 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

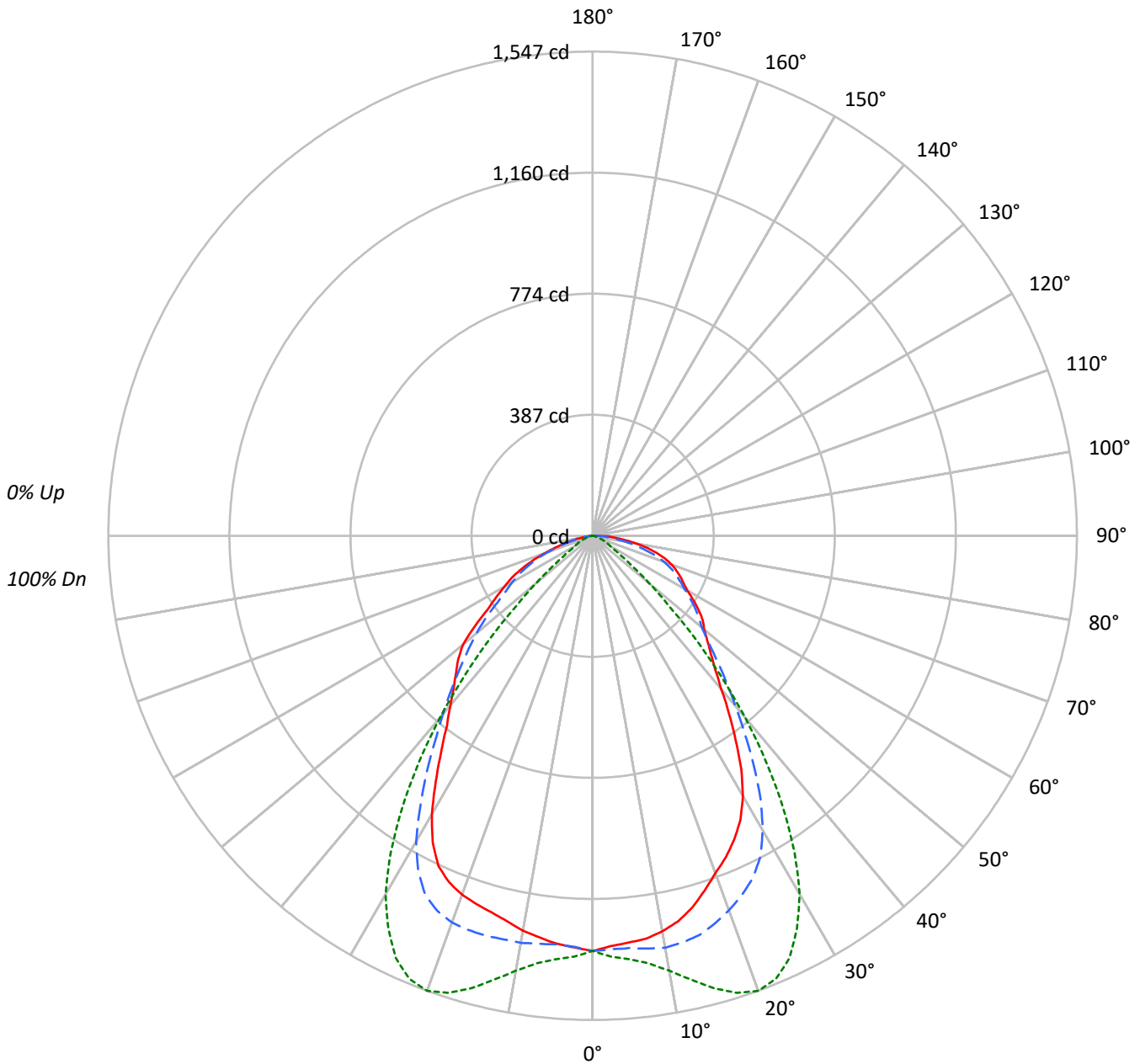
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	330	330	330
5°	326	340	327
10°	325	357	324
15°	317	386	321
20°	304	410	323
25°	294	409	320
30°	276	380	295
35°	242	323	257
40°	208	246	229
45°	188	162	217
50°	180	91	209
55°	180	49	177
60°	174	32	162
65°	182	27	148
70°	195	19	121
75°	205	13	83
80°	201	8	54
85°	208	6	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.0	4.7
10°-20°	380.1	13.9
20°-30°	579.8	21.3
30°-40°	578.7	21.2
40°-50°	426.8	15.6
50°-60°	291.6	10.7
60°-70°	205.8	7.5
70°-80°	109.9	4.0
80°-90°	28.2	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°	1087.0	39.8
0°-40°	1665.7	61.1
0°-60°	2384.0	87.4
0°-90°	2728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2728.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1326	1326	1326	1326	1326	
5°	1305	1322	1358	1311	1309	124
15°	1230	1320	1496	1322	1246	345
25°	1070	1208	1488	1265	1165	490
35°	796	899	1060	924	844	498
45°	534	560	459	599	617	417
55°	414	398	112	370	408	368
65°	309	294	45	227	250	306
75°	213	173	14	79	87	221
85°	73	47	2	10	0	81
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°	1326.5	1326.5	1326.5	1326.5	1326.5	1326.5	1326.5	1326.5	1326.5
2.5°	1312.7	1320.5	1322.5	1336.3	1346.2	1334.3	1314.6	1314.6	1316.6
5°	1304.8	1314.6	1322.5	1346.2	1358.0	1338.3	1310.7	1306.8	1308.7
7.5°	1298.9	1312.7	1330.4	1365.9	1377.7	1352.1	1314.6	1298.9	1294.9
10°	1283.1	1302.8	1336.3	1387.6	1411.2	1379.7	1320.5	1291.0	1281.1
12.5°	1261.4	1285.1	1330.4	1411.2	1452.6	1405.3	1320.5	1277.2	1261.4
15°	1229.9	1255.5	1320.5	1430.9	1496.0	1432.9	1322.5	1263.4	1245.7
17.5°	1188.5	1220.0	1298.9	1440.8	1531.4	1458.5	1320.5	1253.5	1233.8
20°	1147.1	1184.6	1273.2	1440.8	1547.2	1468.4	1314.6	1243.7	1220.0
22.5°	1111.6	1149.1	1243.7	1423.0	1531.4	1456.5	1296.9	1225.9	1198.3
25°	1070.2	1109.7	1208.2	1385.6	1488.1	1421.1	1265.4	1190.5	1164.8
27.5°	1022.9	1066.3	1158.9	1326.5	1413.2	1356.0	1206.2	1133.3	1105.7
30°	959.9	999.3	1086.0	1241.7	1322.5	1267.3	1127.4	1052.5	1026.9
32.5°	883.0	918.5	999.3	1139.2	1200.3	1155.0	1024.9	961.8	932.3
35°	796.3	827.8	898.8	1009.1	1060.4	1032.8	924.4	865.3	843.6
37.5°	715.5	739.1	798.2	879.1	910.6	892.8	825.8	782.5	764.7
40°	638.6	662.2	709.5	749.0	756.9	762.8	743.1	715.5	705.6
42.5°	579.5	601.1	630.7	626.8	603.1	636.6	668.2	664.2	656.3
45°	534.1	549.9	559.8	500.6	459.2	514.4	599.2	620.9	616.9
47.5°	496.7	504.6	498.7	400.1	325.2	400.1	538.1	581.4	581.4
50°	465.1	471.1	455.3	333.1	234.5	321.3	484.9	532.2	540.0
52.5°	443.5	445.4	425.7	281.8	161.6	254.3	427.7	469.1	475.0
55°	413.9	415.9	398.1	244.4	112.3	201.0	370.5	408.0	408.0
57.5°	380.4	384.3	366.6	212.9	78.8	167.5	327.2	362.7	364.6
60°	348.9	350.8	339.0	189.2	65.0	143.9	295.6	325.2	325.2
62.5°	327.2	329.2	315.4	175.4	55.2	126.1	262.1	289.7	291.7
65°	309.4	309.4	293.7	161.6	45.3	106.4	226.7	250.3	250.3
67.5°	289.7	285.8	270.0	143.9	35.5	86.7	191.2	208.9	207.0
70°	268.1	262.1	242.4	124.2	25.6	69.0	149.8	163.6	165.6
72.5°	242.4	234.5	208.9	102.5	19.7	51.2	110.4	122.2	122.2
75°	212.9	203.0	173.4	80.8	13.8	35.5	78.8	86.7	86.7
77.5°	177.4	167.5	138.0	59.1	9.9	23.7	53.2	59.1	59.1
80°	139.9	130.1	102.5	41.4	5.9	13.8	33.5	39.4	37.4
82.5°	104.5	94.6	69.0	25.6	3.9	7.9	21.7	21.7	19.7
85°	72.9	67.0	47.3	15.8	2.0	3.9	9.9	3.9	0.0
87.5°	49.3	43.4	29.6	7.9	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)