

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: P209447

Luminaire Tested: **LDSQ6B30D010 EU6B30508040 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209447  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35359)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQ6B30D010 EU6B30508040 6LBCSSQ1MMS  
Description: PORTFOLIO LD6 SERIES 6" RECESSED FIXTURE WITH A SQUARE SHALLOW CAST METALLIC SILVER TRIM  
MEDIUM DISTRIBUTION WITH MATTE METALLIC SILVER TRIM  
WATTAGE D010TR-27.4 W DE010-27.95 W D5LT-27.65 W DMX-27.73 W DL2-29.56 W  
DL3-29.67 W DLE-29.73 W  
Light Source: HIGH LUMEN LED 4000 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3316.8 lumens  
Efficiency: N/A  
Efficacy: 118.5 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.22 / 1.33  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

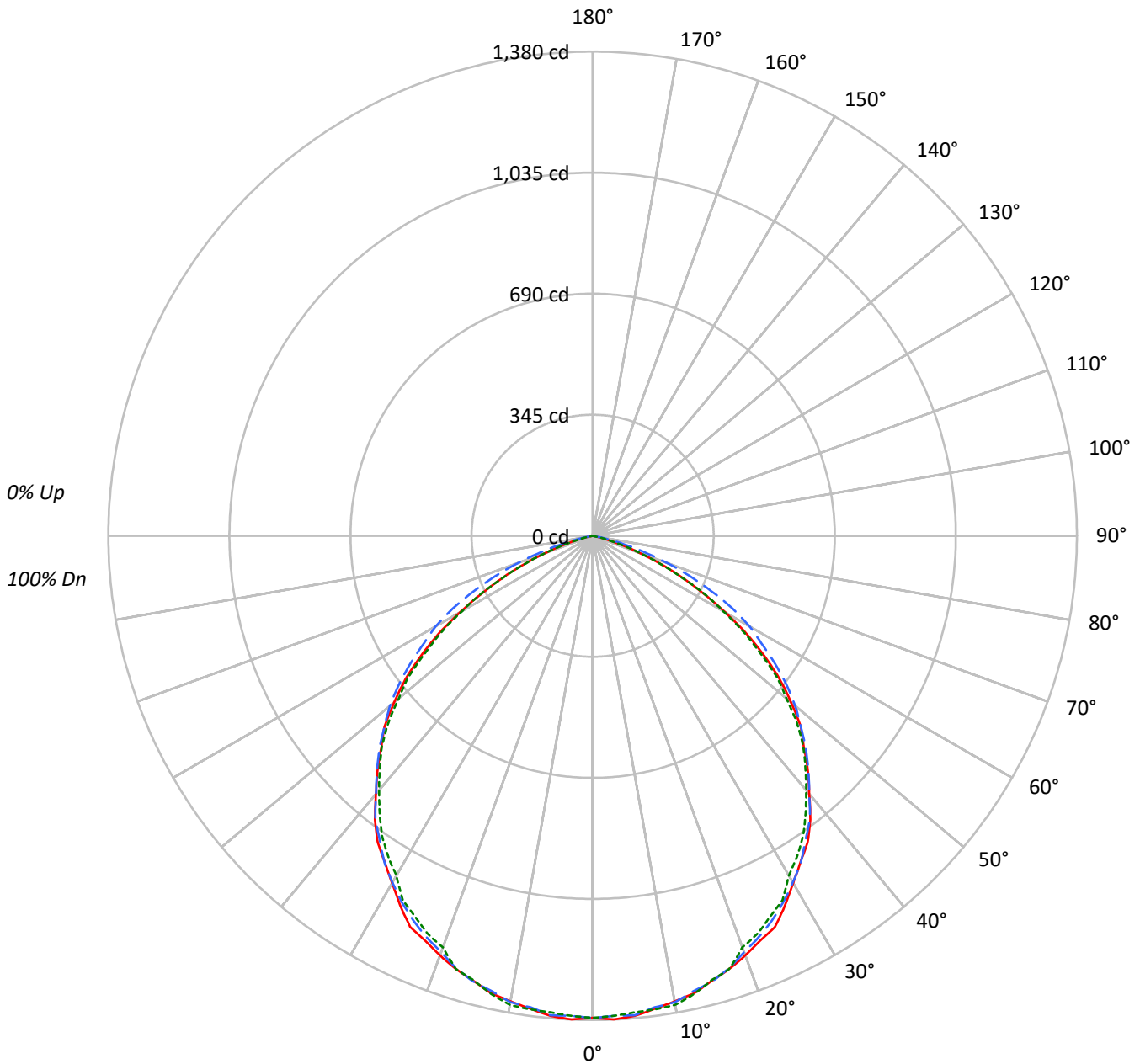
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	94	88	83	99	93	87	82	89	84	80	86	82	79	83	80	77	75																			
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64																			
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56																			
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49																			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43																			
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38																			
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34																			
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28																			

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

	0°	45°	90°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.9	3.9
10°-20°	370.5	11.2
20°-30°	557.5	16.8
30°-40°	659.5	19.9
40°-50°	658.2	19.8
50°-60°	545.8	16.5
60°-70°	318.9	9.6
70°-80°	75.9	2.3
80°-90°	0.5	0.0
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°	1057.9	31.9
0°-40°	1717.5	51.8
0°-60°	2921.5	88.1
0°-90°	3316.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3316.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1374	1367	1372	1368	1364	130
15°	1313	1312	1315	1309	1311	371
25°	1230	1216	1210	1206	1198	562
35°	1068	1058	1058	1052	1046	664
45°	851	852	859	850	849	658
55°	598	619	634	617	584	531
65°	282	317	373	316	280	280
75°	40	59	91	58	38	55
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8
2.5°	1379.9	1371.8	1377.8	1365.7	1373.8	1365.7	1367.7	1363.7	1371.8	1369.7	1367.7
5°	1373.8	1375.8	1371.8	1375.8	1369.7	1363.7	1369.7	1365.7	1353.5	1371.8	1367.7
7.5°	1359.6	1361.6	1357.6	1363.7	1359.6	1351.5	1367.7	1355.6	1353.5	1355.6	1363.7
10°	1347.5	1351.5	1349.5	1347.5	1349.5	1349.5	1345.4	1339.3	1345.4	1349.5	1347.5
12.5°	1335.3	1341.4	1337.3	1333.3	1329.2	1331.2	1335.3	1325.2	1325.2	1329.2	1341.4
15°	1313.0	1317.1	1319.1	1311.0	1311.0	1313.0	1321.1	1304.9	1313.0	1315.0	1317.1
17.5°	1294.8	1296.8	1296.8	1290.7	1294.8	1288.7	1294.8	1286.7	1294.8	1292.7	1296.8
20°	1272.5	1276.5	1272.5	1272.5	1268.4	1270.5	1270.5	1270.5	1264.4	1262.4	1266.4
22.5°	1248.2	1248.2	1244.1	1248.2	1244.1	1242.1	1252.2	1236.0	1252.2	1238.0	1250.2
25°	1229.9	1219.8	1213.7	1211.7	1219.8	1211.7	1215.7	1209.7	1213.7	1209.7	1211.7
27.5°	1187.4	1181.3	1179.3	1181.3	1181.3	1179.3	1187.4	1165.1	1179.3	1177.2	1177.2
30°	1142.8	1142.8	1146.9	1142.8	1146.9	1140.8	1148.9	1130.6	1142.8	1140.8	1142.8
32.5°	1102.3	1104.3	1104.3	1108.4	1102.3	1104.3	1104.3	1098.2	1102.3	1104.3	1100.3
35°	1067.8	1057.7	1057.7	1057.7	1057.7	1057.7	1061.8	1055.7	1061.8	1057.7	1057.7
37.5°	1019.2	1009.1	1009.1	1007.0	1017.2	1011.1	1021.2	1013.1	1013.1	1017.2	1017.2
40°	960.4	964.5	958.4	966.5	964.5	956.4	974.6	962.5	970.6	960.4	968.5
42.5°	907.8	909.8	907.8	905.7	913.8	911.8	919.9	911.8	909.8	909.8	924.0
45°	851.0	851.0	851.0	857.1	851.0	853.1	861.2	857.1	861.2	859.1	873.3
47.5°	804.4	794.3	792.3	804.4	802.4	804.4	804.4	806.4	808.5	804.4	810.5
50°	737.6	733.5	733.5	735.5	737.6	741.6	747.7	751.7	747.7	753.8	755.8
52.5°	672.7	668.7	670.7	678.8	682.8	680.8	691.0	693.0	691.0	695.0	695.0
55°	597.7	593.7	599.8	609.9	616.0	622.1	632.2	624.1	632.2	634.2	636.2
57.5°	520.7	518.7	520.7	530.9	537.0	551.1	567.3	567.3	575.5	569.4	575.5
60°	435.6	435.6	443.7	449.8	466.0	476.2	492.4	500.5	508.6	516.7	512.6
62.5°	354.6	356.6	362.7	376.9	387.0	401.2	419.4	427.5	441.7	449.8	445.8
65°	281.6	281.6	285.7	297.9	308.0	326.2	342.4	360.7	368.8	372.8	374.9
67.5°	210.7	208.7	216.8	224.9	235.0	253.3	271.5	281.6	295.8	299.9	297.9
70°	141.8	143.9	147.9	156.0	168.2	182.4	202.6	210.7	218.8	222.9	218.8
72.5°	89.2	89.2	91.2	99.3	107.4	117.5	131.7	139.8	149.9	152.0	147.9
75°	40.5	40.5	44.6	48.6	54.7	62.8	72.9	79.0	85.1	91.2	91.2
77.5°	8.1	10.1	12.2	12.2	16.2	22.3	28.4	34.4	40.5	40.5	40.5
80°	2.0	2.0	2.0	2.0	2.0	2.0	4.1	6.1	10.1	10.1	10.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8
2.5°	1373.8	1386.0	1373.8	1367.7	1375.8	1373.8	1367.7	1369.7
5°	1367.7	1371.8	1375.8	1359.6	1369.7	1371.8	1367.7	1363.7
7.5°	1361.6	1363.7	1361.6	1357.6	1357.6	1357.6	1361.6	1361.6
10°	1359.6	1353.5	1343.4	1337.3	1343.4	1343.4	1341.4	1357.6
12.5°	1333.3	1341.4	1335.3	1323.1	1335.3	1333.3	1333.3	1337.3
15°	1313.0	1313.0	1317.1	1300.9	1309.0	1306.9	1306.9	1311.0
17.5°	1292.7	1292.7	1290.7	1286.7	1284.6	1290.7	1284.6	1294.8
20°	1264.4	1268.4	1280.6	1260.3	1266.4	1260.3	1260.3	1248.2
22.5°	1229.9	1250.2	1240.1	1238.0	1236.0	1238.0	1242.1	1227.9
25°	1207.6	1207.6	1211.7	1199.5	1199.5	1203.6	1201.6	1197.5
27.5°	1177.2	1175.2	1173.2	1169.1	1179.3	1171.2	1171.2	1171.2
30°	1134.7	1140.8	1138.8	1128.6	1140.8	1136.7	1130.6	1118.5
32.5°	1098.2	1106.3	1094.2	1092.1	1090.1	1092.1	1094.2	1084.0
35°	1053.6	1055.7	1055.7	1047.6	1049.6	1047.6	1043.5	1045.5
37.5°	1013.1	1011.1	1001.0	996.9	998.9	998.9	1001.0	996.9
40°	956.4	962.5	962.5	948.3	952.3	948.3	948.3	946.3
42.5°	909.8	911.8	905.7	899.7	899.7	897.6	893.6	897.6
45°	861.2	859.1	853.1	847.0	847.0	844.9	840.9	849.0
47.5°	806.4	802.4	800.4	792.3	792.3	780.1	782.1	790.2
50°	751.7	747.7	739.6	735.5	729.4	723.4	721.3	721.3
52.5°	686.9	686.9	678.8	670.7	668.7	664.6	660.6	662.6
55°	630.2	630.2	624.1	609.9	601.8	591.7	585.6	583.6
57.5°	565.3	561.3	549.1	532.9	524.8	516.7	510.6	510.6
60°	500.5	490.4	478.2	464.0	449.8	435.6	431.6	429.6
62.5°	429.6	419.4	397.1	380.9	370.8	362.7	354.6	360.7
65°	358.6	344.5	324.2	308.0	297.9	285.7	279.6	279.6
67.5°	283.7	269.5	249.2	233.0	222.9	214.8	206.7	206.7
70°	208.7	198.6	180.3	166.2	158.0	145.9	143.9	143.9
72.5°	141.8	129.7	115.5	105.4	97.3	89.2	85.1	83.1
75°	79.0	70.9	60.8	54.7	46.6	42.6	38.5	38.5
77.5°	32.4	26.3	20.3	16.2	12.2	10.1	8.1	10.1
80°	6.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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









(END OF REPORT)