

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: P209466

Luminaire Tested: **LDSQ6B40D010 EU6B30509050 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209466  
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: LDSQ6B40D010 EU6B30509050 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-43.02 W DE010-42.54 W D5LT-42.539 W DMX-41.87 W DL2-41.57 W DL3-44.71 W DLE-39.33 W  
Light Source: HIGH LUMEN LED 5000 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3942.6 lumens  
Efficiency: N/A  
Efficacy: 91.6 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

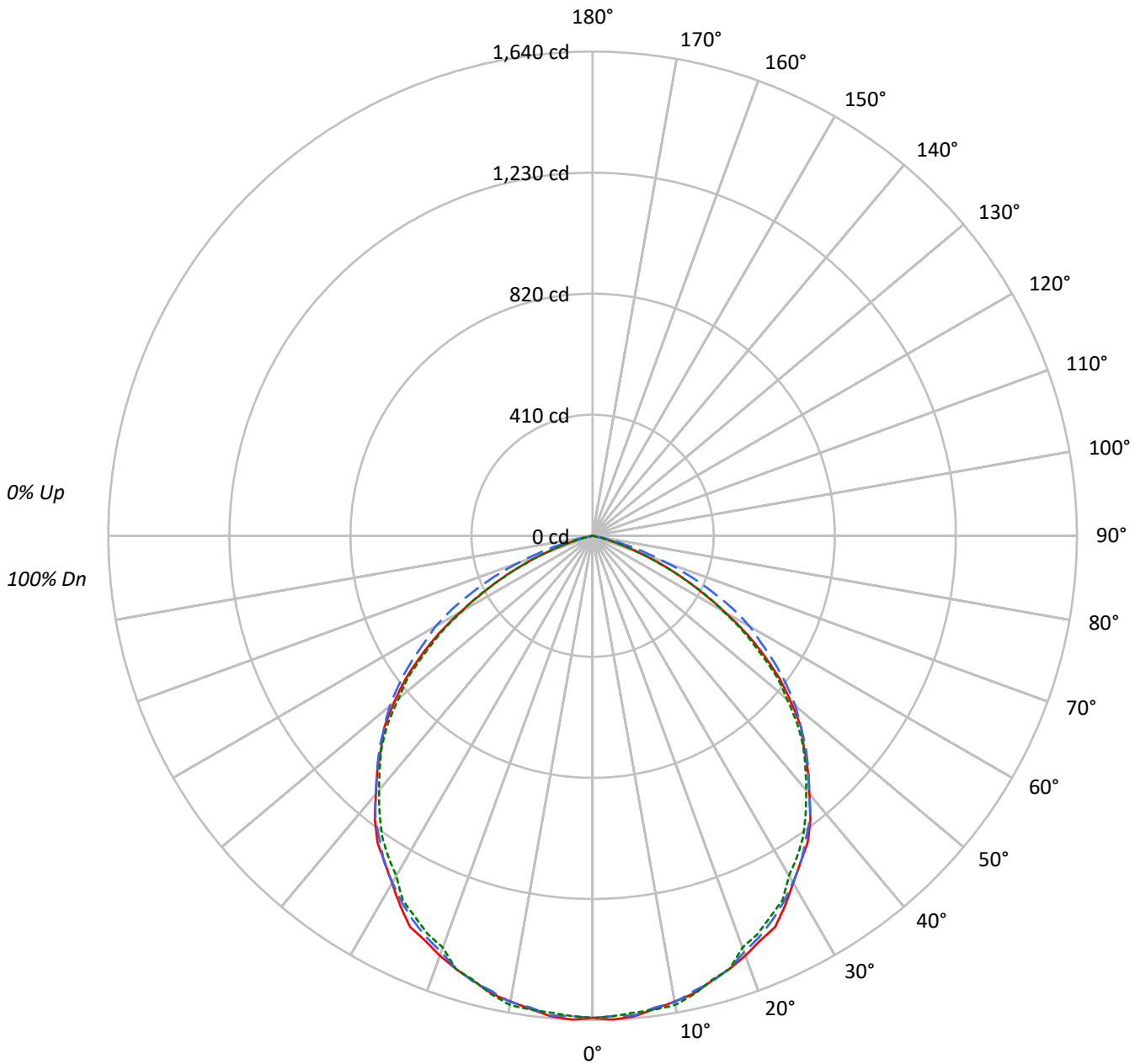
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	154.4	3.9
10°-20°	440.4	11.2
20°-30°	662.7	16.8
30°-40°	784.0	19.9
40°-50°	782.4	19.8
50°-60°	648.8	16.5
60°-70°	379.0	9.6
70°-80°	90.3	2.3
80°-90°	0.7	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°	1257.6	31.9
0°-40°	2041.5	51.8
0°-60°	3472.7	88.1
0°-90°	3942.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3942.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1633	1633	1633	1633	1633	
5°	1633	1625	1631	1626	1621	155
15°	1561	1560	1563	1556	1558	441
25°	1462	1445	1438	1433	1424	668
35°	1269	1257	1257	1250	1243	789
45°	1012	1013	1021	1010	1009	783
55°	710	736	754	733	694	631
65°	335	377	443	376	332	333
75°	48	70	108	69	46	65
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0
2.5°	1640.2	1630.6	1637.8	1623.4	1633.0	1623.4	1625.8	1621.0	1630.6	1628.2	1625.8
5°	1633.0	1635.4	1630.6	1635.4	1628.2	1621.0	1628.2	1623.4	1608.9	1630.6	1625.8
7.5°	1616.1	1618.6	1613.7	1621.0	1616.1	1606.5	1625.8	1611.3	1608.9	1611.3	1621.0
10°	1601.7	1606.5	1604.1	1601.7	1604.1	1604.1	1599.3	1592.1	1599.3	1604.1	1601.7
12.5°	1587.2	1594.5	1589.6	1584.8	1580.0	1582.4	1587.2	1575.2	1575.2	1580.0	1594.5
15°	1560.7	1565.6	1568.0	1558.3	1558.3	1560.7	1570.4	1551.1	1560.7	1563.2	1565.6
17.5°	1539.1	1541.5	1541.5	1534.3	1539.1	1531.8	1539.1	1529.4	1539.1	1536.7	1541.5
20°	1512.6	1517.4	1512.6	1512.6	1507.8	1510.2	1510.2	1510.2	1502.9	1500.5	1505.4
22.5°	1483.7	1483.7	1478.9	1483.7	1478.9	1476.4	1488.5	1469.2	1488.5	1471.6	1486.1
25°	1462.0	1450.0	1442.7	1440.3	1450.0	1440.3	1445.1	1437.9	1442.7	1437.9	1440.3
27.5°	1411.4	1404.2	1401.8	1404.2	1404.2	1401.8	1411.4	1384.9	1401.8	1399.4	1399.4
30°	1358.4	1358.4	1363.2	1358.4	1363.2	1356.0	1365.7	1344.0	1358.4	1356.0	1358.4
32.5°	1310.3	1312.7	1312.7	1317.5	1310.3	1312.7	1312.7	1305.4	1310.3	1312.7	1307.8
35°	1269.3	1257.3	1257.3	1257.3	1257.3	1257.3	1262.1	1254.9	1262.1	1257.3	1257.3
37.5°	1211.5	1199.5	1199.5	1197.1	1209.1	1201.9	1213.9	1204.3	1204.3	1209.1	1209.1
40°	1141.7	1146.5	1139.2	1148.9	1146.5	1136.8	1158.5	1144.1	1153.7	1141.7	1151.3
42.5°	1079.0	1081.4	1079.0	1076.6	1086.3	1083.9	1093.5	1083.9	1081.4	1081.4	1098.3
45°	1011.6	1011.6	1011.6	1018.8	1011.6	1014.0	1023.6	1018.8	1023.6	1021.2	1038.1
47.5°	956.2	944.2	941.7	956.2	953.8	956.2	956.2	958.6	961.0	956.2	963.4
50°	876.7	871.9	871.9	874.3	876.7	881.5	888.8	893.6	888.8	896.0	898.4
52.5°	799.6	794.8	797.2	806.9	811.7	809.3	821.3	823.7	821.3	826.1	826.1
55°	710.5	705.7	712.9	725.0	732.2	739.4	751.5	741.8	751.5	753.9	756.3
57.5°	619.0	616.6	619.0	631.0	638.3	655.1	674.4	674.4	684.0	676.8	684.0
60°	517.8	517.8	527.5	534.7	554.0	566.0	585.3	594.9	604.5	614.2	609.4
62.5°	421.5	423.9	431.1	448.0	460.0	476.9	498.6	508.2	525.1	534.7	529.9
65°	334.8	334.8	339.6	354.1	366.1	387.8	407.0	428.7	438.4	443.2	445.6
67.5°	250.5	248.1	257.7	267.4	279.4	301.1	322.7	334.8	351.6	356.5	354.1
70°	168.6	171.0	175.8	185.5	199.9	216.8	240.9	250.5	260.1	264.9	260.1
72.5°	106.0	106.0	108.4	118.0	127.7	139.7	156.6	166.2	178.2	180.6	175.8
75°	48.2	48.2	53.0	57.8	65.0	74.7	86.7	93.9	101.2	108.4	108.4
77.5°	9.6	12.0	14.5	14.5	19.3	26.5	33.7	40.9	48.2	48.2	48.2
80°	2.4	2.4	2.4	2.4	2.4	2.4	4.8	7.2	12.0	12.0	12.0
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°	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0
2.5°	1633.0	1647.5	1633.0	1625.8	1635.4	1633.0	1625.8	1628.2
5°	1625.8	1630.6	1635.4	1616.1	1628.2	1630.6	1625.8	1621.0
7.5°	1618.6	1621.0	1618.6	1613.7	1613.7	1613.7	1618.6	1618.6
10°	1616.1	1608.9	1596.9	1589.6	1596.9	1596.9	1594.5	1613.7
12.5°	1584.8	1594.5	1587.2	1572.8	1587.2	1584.8	1584.8	1589.6
15°	1560.7	1560.7	1565.6	1546.3	1555.9	1553.5	1553.5	1558.3
17.5°	1536.7	1536.7	1534.3	1529.4	1527.0	1534.3	1527.0	1539.1
20°	1502.9	1507.8	1522.2	1498.1	1505.4	1498.1	1498.1	1483.7
22.5°	1462.0	1486.1	1474.0	1471.6	1469.2	1471.6	1476.4	1459.6
25°	1435.5	1435.5	1440.3	1425.9	1425.9	1430.7	1428.3	1423.5
27.5°	1399.4	1397.0	1394.6	1389.7	1401.8	1392.1	1392.1	1392.1
30°	1348.8	1356.0	1353.6	1341.6	1356.0	1351.2	1344.0	1329.5
32.5°	1305.4	1315.1	1300.6	1298.2	1295.8	1298.2	1300.6	1288.6
35°	1252.5	1254.9	1254.9	1245.2	1247.6	1245.2	1240.4	1242.8
37.5°	1204.3	1201.9	1189.8	1185.0	1187.4	1187.4	1189.8	1185.0
40°	1136.8	1144.1	1144.1	1127.2	1132.0	1127.2	1127.2	1124.8
42.5°	1081.4	1083.9	1076.6	1069.4	1069.4	1067.0	1062.2	1067.0
45°	1023.6	1021.2	1014.0	1006.8	1006.8	1004.4	999.6	1009.2
47.5°	958.6	953.8	951.4	941.7	941.7	927.3	929.7	939.3
50°	893.6	888.8	879.1	874.3	867.1	859.9	857.4	857.4
52.5°	816.5	816.5	806.9	797.2	794.8	790.0	785.2	787.6
55°	749.1	749.1	741.8	725.0	715.3	703.3	696.1	693.7
57.5°	672.0	667.2	652.7	633.5	623.8	614.2	607.0	607.0
60°	594.9	582.9	568.4	551.6	534.7	517.8	513.0	510.6
62.5°	510.6	498.6	472.1	452.8	440.8	431.1	421.5	428.7
65°	426.3	409.5	385.4	366.1	354.1	339.6	332.4	332.4
67.5°	337.2	320.3	296.3	277.0	264.9	255.3	245.7	245.7
70°	248.1	236.0	214.4	197.5	187.9	173.4	171.0	171.0
72.5°	168.6	154.1	137.3	125.2	115.6	106.0	101.2	98.8
75°	93.9	84.3	72.3	65.0	55.4	50.6	45.8	45.8
77.5°	38.5	31.3	24.1	19.3	14.5	12.0	9.6	12.0
80°	7.2	4.8	2.4	2.4	2.4	2.4	2.4	2.4
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)