

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: P209476

Luminaire Tested: **LDSQ6B50D010 EU6B30509030 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209476  
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: LDSQ6B50D010 EU6B30509030 6LBCSSQ1MMS  
Description: PORTFOLIO LD6 SERIES 6" RECESSED FIXTURE WITH A SQUARE SHALLOW CAST METALLIC SILVER TRIM  
MEDIUM DISTRIBUTION WITH MATTE METALLIC SILVER TRIM  
D010TE  
Light Source: HIGH LUMEN LED 3000 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4930.5 lumens  
Efficiency: N/A  
Efficacy: 83.9 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

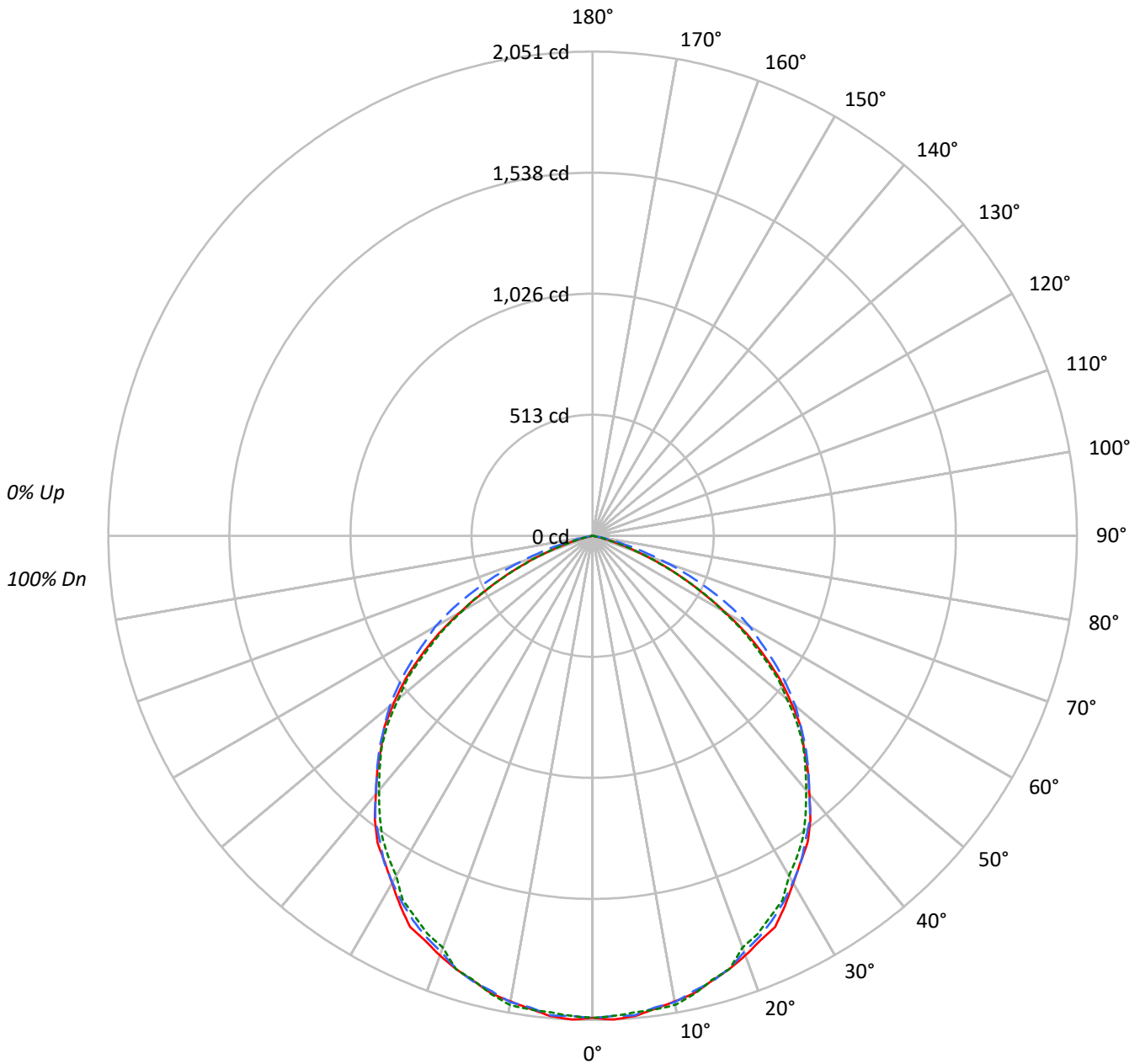
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	193.1	3.9
10°-20°	550.8	11.2
20°-30°	828.8	16.8
30°-40°	980.4	19.9
40°-50°	978.4	19.8
50°-60°	811.3	16.5
60°-70°	474.0	9.6
70°-80°	112.9	2.3
80°-90°	0.8	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°	1572.7	31.9
0°-40°	2553.1	51.8
0°-60°	4342.8	88.1
0°-90°	4930.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4930.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2042	2042	2042	2042	2042	
5°	2042	2032	2039	2033	2027	193
15°	1952	1950	1955	1946	1949	552
25°	1828	1807	1798	1792	1780	836
35°	1587	1572	1572	1563	1554	987
45°	1265	1267	1277	1264	1262	979
55°	889	920	943	917	868	789
65°	419	471	554	470	416	416
75°	60	87	136	86	57	82
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°	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2
2.5°	2051.2	2039.2	2048.2	2030.2	2042.2	2030.2	2033.2	2027.1	2039.2	2036.2	2033.2
5°	2042.2	2045.2	2039.2	2045.2	2036.2	2027.1	2036.2	2030.2	2012.1	2039.2	2033.2
7.5°	2021.1	2024.1	2018.1	2027.1	2021.1	2009.1	2033.2	2015.1	2012.1	2015.1	2027.1
10°	2003.0	2009.1	2006.1	2003.0	2006.1	2006.1	2000.0	1991.0	2000.0	2006.1	2003.0
12.5°	1985.0	1994.0	1988.0	1982.0	1975.9	1978.9	1985.0	1969.9	1969.9	1975.9	1994.0
15°	1951.8	1957.9	1960.9	1948.8	1948.8	1951.8	1963.9	1939.8	1951.8	1954.8	1957.9
17.5°	1924.7	1927.7	1927.7	1918.7	1924.7	1915.7	1924.7	1912.7	1924.7	1921.7	1927.7
20°	1891.6	1897.6	1891.6	1891.6	1885.6	1888.6	1888.6	1888.6	1879.5	1876.5	1882.6
22.5°	1855.5	1855.5	1849.4	1855.5	1849.4	1846.4	1861.5	1837.4	1861.5	1840.4	1858.5
25°	1828.3	1813.3	1804.2	1801.2	1813.3	1801.2	1807.3	1798.2	1804.2	1798.2	1801.2
27.5°	1765.1	1756.1	1753.0	1756.1	1756.1	1753.0	1765.1	1732.0	1753.0	1750.0	1750.0
30°	1698.8	1698.8	1704.8	1698.8	1704.8	1695.8	1707.9	1680.7	1698.8	1695.8	1698.8
32.5°	1638.6	1641.6	1641.6	1647.6	1638.6	1641.6	1641.6	1632.6	1638.6	1641.6	1635.6
35°	1587.4	1572.3	1572.3	1572.3	1572.3	1572.3	1578.3	1569.3	1578.3	1572.3	1572.3
37.5°	1515.1	1500.0	1500.0	1497.0	1512.1	1503.0	1518.1	1506.0	1506.0	1512.1	1512.1
40°	1427.7	1433.8	1424.7	1436.8	1433.8	1421.7	1448.8	1430.7	1442.8	1427.7	1439.8
42.5°	1349.4	1352.4	1349.4	1346.4	1358.5	1355.4	1367.5	1355.4	1352.4	1352.4	1373.5
45°	1265.1	1265.1	1265.1	1274.1	1265.1	1268.1	1280.1	1274.1	1280.1	1277.1	1298.2
47.5°	1195.8	1180.7	1177.7	1195.8	1192.8	1195.8	1195.8	1198.8	1201.8	1195.8	1204.8
50°	1096.4	1090.4	1090.4	1093.4	1096.4	1102.4	1111.5	1117.5	1111.5	1120.5	1123.5
52.5°	1000.0	994.0	997.0	1009.1	1015.1	1012.1	1027.1	1030.1	1027.1	1033.1	1033.1
55°	888.6	882.5	891.6	906.6	915.7	924.7	939.8	927.7	939.8	942.8	945.8
57.5°	774.1	771.1	774.1	789.2	798.2	819.3	843.4	843.4	855.4	846.4	855.4
60°	647.6	647.6	659.6	668.7	692.8	707.8	731.9	744.0	756.0	768.1	762.1
62.5°	527.1	530.1	539.2	560.2	575.3	596.4	623.5	635.6	656.6	668.7	662.7
65°	418.7	418.7	424.7	442.8	457.8	484.9	509.0	536.2	548.2	554.2	557.2
67.5°	313.3	310.2	322.3	334.3	349.4	376.5	403.6	418.7	439.8	445.8	442.8
70°	210.8	213.9	219.9	231.9	250.0	271.1	301.2	313.3	325.3	331.3	325.3
72.5°	132.5	132.5	135.5	147.6	159.6	174.7	195.8	207.8	222.9	225.9	219.9
75°	60.2	60.2	66.3	72.3	81.3	93.4	108.4	117.5	126.5	135.5	135.5
77.5°	12.0	15.1	18.1	18.1	24.1	33.1	42.2	51.2	60.2	60.2	60.2
80°	3.0	3.0	3.0	3.0	3.0	3.0	6.0	9.0	15.1	15.1	15.1
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°	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2	2042.2
2.5°	2042.2	2060.3	2042.2	2033.2	2045.2	2042.2	2033.2	2036.2
5°	2033.2	2039.2	2045.2	2021.1	2036.2	2039.2	2033.2	2027.1
7.5°	2024.1	2027.1	2024.1	2018.1	2018.1	2018.1	2024.1	2024.1
10°	2021.1	2012.1	1997.0	1988.0	1997.0	1997.0	1994.0	2018.1
12.5°	1982.0	1994.0	1985.0	1966.9	1985.0	1982.0	1982.0	1988.0
15°	1951.8	1951.8	1957.9	1933.8	1945.8	1942.8	1942.8	1948.8
17.5°	1921.7	1921.7	1918.7	1912.7	1909.7	1918.7	1909.7	1924.7
20°	1879.5	1885.6	1903.6	1873.5	1882.6	1873.5	1873.5	1855.5
22.5°	1828.3	1858.5	1843.4	1840.4	1837.4	1840.4	1846.4	1825.3
25°	1795.2	1795.2	1801.2	1783.2	1783.2	1789.2	1786.2	1780.1
27.5°	1750.0	1747.0	1744.0	1738.0	1753.0	1741.0	1741.0	1741.0
30°	1686.8	1695.8	1692.8	1677.7	1695.8	1689.8	1680.7	1662.7
32.5°	1632.6	1644.6	1626.5	1623.5	1620.5	1623.5	1626.5	1611.5
35°	1566.3	1569.3	1569.3	1557.3	1560.3	1557.3	1551.2	1554.2
37.5°	1506.0	1503.0	1488.0	1482.0	1485.0	1485.0	1488.0	1482.0
40°	1421.7	1430.7	1430.7	1409.7	1415.7	1409.7	1409.7	1406.6
42.5°	1352.4	1355.4	1346.4	1337.4	1337.4	1334.4	1328.3	1334.4
45°	1280.1	1277.1	1268.1	1259.1	1259.1	1256.0	1250.0	1262.1
47.5°	1198.8	1192.8	1189.8	1177.7	1177.7	1159.7	1162.7	1174.7
50°	1117.5	1111.5	1099.4	1093.4	1084.4	1075.3	1072.3	1072.3
52.5°	1021.1	1021.1	1009.1	997.0	994.0	988.0	981.9	985.0
55°	936.8	936.8	927.7	906.6	894.6	879.5	870.5	867.5
57.5°	840.4	834.4	816.3	792.2	780.1	768.1	759.0	759.0
60°	744.0	728.9	710.9	689.8	668.7	647.6	641.6	638.6
62.5°	638.6	623.5	590.4	566.3	551.2	539.2	527.1	536.2
65°	533.1	512.1	481.9	457.8	442.8	424.7	415.7	415.7
67.5°	421.7	400.6	370.5	346.4	331.3	319.3	307.2	307.2
70°	310.2	295.2	268.1	247.0	234.9	216.9	213.9	213.9
72.5°	210.8	192.8	171.7	156.6	144.6	132.5	126.5	123.5
75°	117.5	105.4	90.4	81.3	69.3	63.3	57.2	57.2
77.5°	48.2	39.2	30.1	24.1	18.1	15.1	12.0	15.1
80°	9.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
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)