

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: P209475

Luminaire Tested: **LDSQ6B50D010 EU6B30509027 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209475  
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 EU6B30509027 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 2700 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4742.2 lumens  
Efficiency: N/A  
Efficacy: 80.7 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

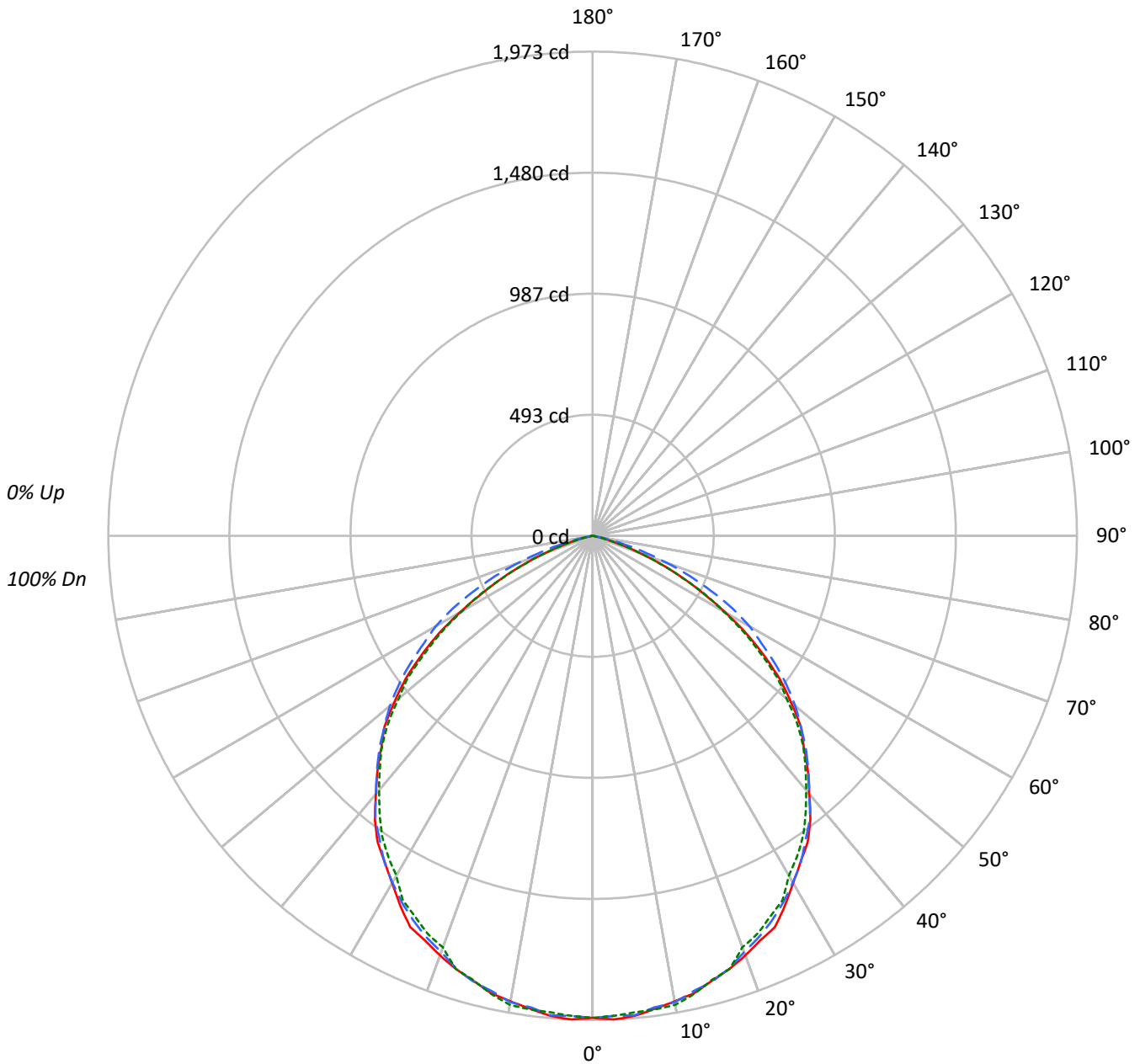
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	185.8	3.9
10°-20°	529.7	11.2
20°-30°	797.1	16.8
30°-40°	943.0	19.9
40°-50°	941.0	19.8
50°-60°	780.3	16.5
60°-70°	455.9	9.6
70°-80°	108.6	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°	1512.6	31.9
0°-40°	2455.5	51.8
0°-60°	4176.9	88.1
0°-90°	4742.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4742.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1964	1964	1964	1964	1964	
5°	1964	1954	1961	1956	1950	186
15°	1877	1876	1880	1871	1874	531
25°	1758	1738	1730	1724	1712	804
35°	1527	1512	1512	1504	1495	949
45°	1217	1218	1228	1215	1214	941
55°	855	885	907	882	834	759
65°	403	453	533	452	400	400
75°	58	84	130	83	55	78
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°	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2
2.5°	1972.9	1961.3	1970.0	1952.6	1964.2	1952.6	1955.5	1949.7	1961.3	1958.4	1955.5
5°	1964.2	1967.1	1961.3	1967.1	1958.4	1949.7	1958.4	1952.6	1935.2	1961.3	1955.5
7.5°	1943.9	1946.8	1941.0	1949.7	1943.9	1932.3	1955.5	1938.1	1935.2	1938.1	1949.7
10°	1926.5	1932.3	1929.4	1926.5	1929.4	1929.4	1923.6	1914.9	1923.6	1929.4	1926.5
12.5°	1909.1	1917.8	1912.0	1906.2	1900.4	1903.3	1909.1	1894.6	1894.6	1900.4	1917.8
15°	1877.3	1883.0	1885.9	1874.4	1874.4	1877.3	1888.8	1865.7	1877.3	1880.2	1883.0
17.5°	1851.2	1854.1	1854.1	1845.4	1851.2	1842.5	1851.2	1839.6	1851.2	1848.3	1854.1
20°	1819.3	1825.1	1819.3	1819.3	1813.5	1816.4	1816.4	1816.4	1807.7	1804.8	1810.6
22.5°	1784.5	1784.5	1778.8	1784.5	1778.8	1775.9	1790.3	1767.2	1790.3	1770.1	1787.4
25°	1758.5	1744.0	1735.3	1732.4	1744.0	1732.4	1738.2	1729.5	1735.3	1729.5	1732.4
27.5°	1697.6	1688.9	1686.1	1688.9	1688.9	1686.1	1697.6	1665.8	1686.1	1683.2	1683.2
30°	1633.9	1633.9	1639.7	1633.9	1639.7	1631.0	1642.6	1616.5	1633.9	1631.0	1633.9
32.5°	1576.0	1578.9	1578.9	1584.7	1576.0	1578.9	1578.9	1570.2	1576.0	1578.9	1573.1
35°	1526.7	1512.2	1512.2	1512.2	1512.2	1512.2	1518.0	1509.3	1518.0	1512.2	1512.2
37.5°	1457.2	1442.7	1442.7	1439.8	1454.3	1445.6	1460.1	1448.5	1448.5	1454.3	1454.3
40°	1373.2	1379.0	1370.3	1381.9	1379.0	1367.4	1393.5	1376.1	1387.7	1373.2	1384.8
42.5°	1297.9	1300.8	1297.9	1295.0	1306.5	1303.6	1315.2	1303.6	1300.8	1300.8	1321.0
45°	1216.7	1216.7	1216.7	1225.4	1216.7	1219.6	1231.2	1225.4	1231.2	1228.3	1248.6
47.5°	1150.1	1135.6	1132.7	1150.1	1147.2	1150.1	1150.1	1153.0	1155.9	1150.1	1158.8
50°	1054.5	1048.7	1048.7	1051.6	1054.5	1060.3	1069.0	1074.8	1069.0	1077.7	1080.6
52.5°	961.8	956.0	958.9	970.5	976.3	973.4	987.9	990.8	987.9	993.7	993.7
55°	854.6	848.8	857.5	872.0	880.7	889.4	903.9	892.3	903.9	906.8	909.7
57.5°	744.5	741.6	744.5	759.0	767.7	788.0	811.2	811.2	822.7	814.1	822.7
60°	622.9	622.9	634.4	643.1	666.3	680.8	704.0	715.6	727.1	738.7	732.9
62.5°	507.0	509.9	518.6	538.8	553.3	573.6	599.7	611.3	631.5	643.1	637.3
65°	402.7	402.7	408.5	425.9	440.3	466.4	489.6	515.7	527.3	533.0	535.9
67.5°	301.3	298.4	310.0	321.6	336.1	362.1	388.2	402.7	423.0	428.8	425.9
70°	202.8	205.7	211.5	223.1	240.5	260.7	289.7	301.3	312.9	318.7	312.9
72.5°	127.5	127.5	130.4	142.0	153.5	168.0	188.3	199.9	214.4	217.3	211.5
75°	57.9	57.9	63.7	69.5	78.2	89.8	104.3	113.0	121.7	130.4	130.4
77.5°	11.6	14.5	17.4	17.4	23.2	31.9	40.6	49.2	57.9	57.9	57.9
80°	2.9	2.9	2.9	2.9	2.9	2.9	5.8	8.7	14.5	14.5	14.5
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°	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2	1964.2
2.5°	1964.2	1981.5	1964.2	1955.5	1967.1	1964.2	1955.5	1958.4
5°	1955.5	1961.3	1967.1	1943.9	1958.4	1961.3	1955.5	1949.7
7.5°	1946.8	1949.7	1946.8	1941.0	1941.0	1941.0	1946.8	1946.8
10°	1943.9	1935.2	1920.7	1912.0	1920.7	1920.7	1917.8	1941.0
12.5°	1906.2	1917.8	1909.1	1891.7	1909.1	1906.2	1906.2	1912.0
15°	1877.3	1877.3	1883.0	1859.9	1871.5	1868.6	1868.6	1874.4
17.5°	1848.3	1848.3	1845.4	1839.6	1836.7	1845.4	1836.7	1851.2
20°	1807.7	1813.5	1830.9	1801.9	1810.6	1801.9	1801.9	1784.5
22.5°	1758.5	1787.4	1773.0	1770.1	1767.2	1770.1	1775.9	1755.6
25°	1726.6	1726.6	1732.4	1715.0	1715.0	1720.8	1717.9	1712.1
27.5°	1683.2	1680.3	1677.4	1671.6	1686.1	1674.5	1674.5	1674.5
30°	1622.3	1631.0	1628.1	1613.6	1631.0	1625.2	1616.5	1599.1
32.5°	1570.2	1581.8	1564.4	1561.5	1558.6	1561.5	1564.4	1549.9
35°	1506.4	1509.3	1509.3	1497.7	1500.6	1497.7	1492.0	1494.8
37.5°	1448.5	1445.6	1431.1	1425.3	1428.2	1428.2	1431.1	1425.3
40°	1367.4	1376.1	1376.1	1355.8	1361.6	1355.8	1355.8	1352.9
42.5°	1300.8	1303.6	1295.0	1286.3	1286.3	1283.4	1277.6	1283.4
45°	1231.2	1228.3	1219.6	1210.9	1210.9	1208.0	1202.3	1213.8
47.5°	1153.0	1147.2	1144.3	1132.7	1132.7	1115.3	1118.2	1129.8
50°	1074.8	1069.0	1057.4	1051.6	1042.9	1034.2	1031.3	1031.3
52.5°	982.1	982.1	970.5	958.9	956.0	950.2	944.4	947.3
55°	901.0	901.0	892.3	872.0	860.4	845.9	837.2	834.3
57.5°	808.3	802.5	785.1	761.9	750.3	738.7	730.0	730.0
60°	715.6	701.1	683.7	663.4	643.1	622.9	617.1	614.2
62.5°	614.2	599.7	567.8	544.6	530.2	518.6	507.0	515.7
65°	512.8	492.5	463.5	440.3	425.9	408.5	399.8	399.8
67.5°	405.6	385.3	356.3	333.2	318.7	307.1	295.5	295.5
70°	298.4	283.9	257.8	237.6	226.0	208.6	205.7	205.7
72.5°	202.8	185.4	165.1	150.6	139.1	127.5	121.7	118.8
75°	113.0	101.4	86.9	78.2	66.6	60.8	55.0	55.0
77.5°	46.4	37.7	29.0	23.2	17.4	14.5	11.6	14.5
80°	8.7	5.8	2.9	2.9	2.9	2.9	2.9	2.9
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



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









(END OF REPORT)