

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: P209490

Luminaire Tested: **LDSQ6B60D010 EU6B60709035 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209490  
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: LDSQ6B60D010 EU6B60709035 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 3500 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5658.1 lumens  
Efficiency: N/A  
Efficacy: 90.6 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

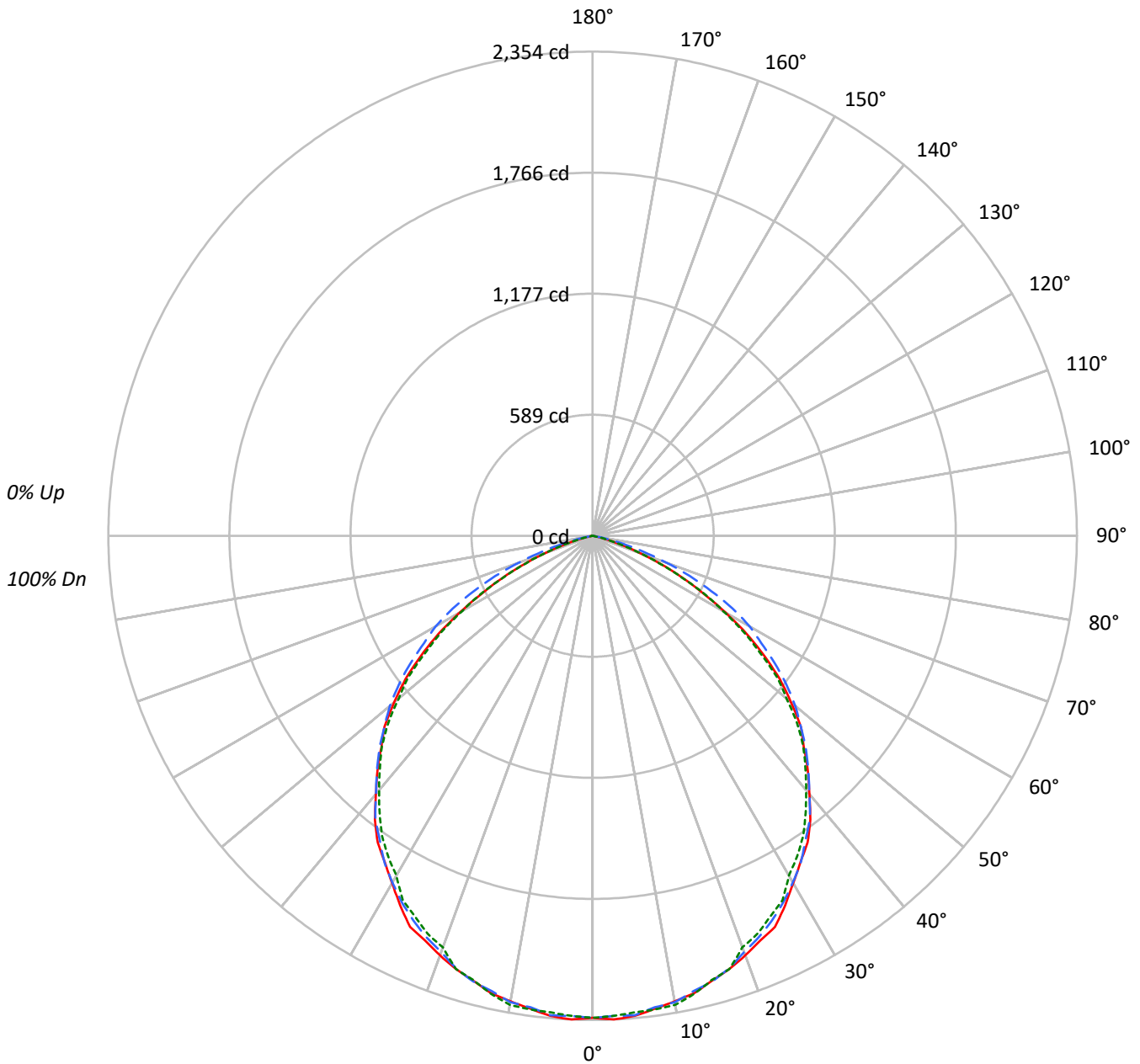
Input Watts (W): 62.48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	221.6	3.9
10°-20°	632.0	11.2
20°-30°	951.0	16.8
30°-40°	1125.1	19.9
40°-50°	1122.8	19.8
50°-60°	931.0	16.5
60°-70°	544.0	9.6
70°-80°	129.5	2.3
80°-90°	0.9	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°	1804.7	31.9
0°-40°	2929.8	51.8
0°-60°	4983.6	88.1
0°-90°	5658.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5658.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2344	2344	2344	2344	2344	
5°	2344	2331	2340	2333	2326	222
15°	2240	2238	2243	2233	2236	633
25°	2098	2074	2064	2057	2043	959
35°	1822	1804	1804	1794	1784	1133
45°	1452	1453	1466	1450	1448	1123
55°	1020	1056	1082	1052	996	905
65°	480	541	636	539	477	478
75°	69	100	156	98	66	94
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°	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5
2.5°	2353.9	2340.1	2350.4	2329.7	2343.5	2329.7	2333.1	2326.2	2340.1	2336.6	2333.1
5°	2343.5	2347.0	2340.1	2347.0	2336.6	2326.2	2336.6	2329.7	2309.0	2340.1	2333.1
7.5°	2319.3	2322.8	2315.9	2326.2	2319.3	2305.5	2333.1	2312.4	2309.0	2312.4	2326.2
10°	2298.6	2305.5	2302.0	2298.6	2302.0	2302.0	2295.1	2284.8	2295.1	2302.0	2298.6
12.5°	2277.8	2288.2	2281.3	2274.4	2267.5	2270.9	2277.8	2260.6	2260.6	2267.5	2288.2
15°	2239.8	2246.7	2250.2	2236.4	2236.4	2239.8	2253.6	2226.0	2239.8	2243.3	2246.7
17.5°	2208.7	2212.2	2212.2	2201.8	2208.7	2198.3	2208.7	2194.9	2208.7	2205.3	2212.2
20°	2170.7	2177.6	2170.7	2170.7	2163.8	2167.2	2167.2	2167.2	2156.9	2153.4	2160.3
22.5°	2129.2	2129.2	2122.3	2129.2	2122.3	2118.8	2136.1	2108.5	2136.1	2111.9	2132.7
25°	2098.1	2080.8	2070.5	2067.0	2080.8	2067.0	2073.9	2063.5	2070.5	2063.5	2067.0
27.5°	2025.5	2015.1	2011.7	2015.1	2015.1	2011.7	2025.5	1987.5	2011.7	2008.2	2008.2
30°	1949.5	1949.5	1956.4	1949.5	1956.4	1946.0	1959.8	1928.7	1949.5	1946.0	1949.5
32.5°	1880.3	1883.8	1883.8	1890.7	1880.3	1883.8	1883.8	1873.4	1880.3	1883.8	1876.9
35°	1821.6	1804.3	1804.3	1804.3	1804.3	1804.3	1811.2	1800.8	1811.2	1804.3	1804.3
37.5°	1738.6	1721.3	1721.3	1717.9	1735.2	1724.8	1742.1	1728.3	1728.3	1735.2	1735.2
40°	1638.4	1645.3	1634.9	1648.8	1645.3	1631.5	1662.6	1641.8	1655.7	1638.4	1652.2
42.5°	1548.5	1552.0	1548.5	1545.1	1558.9	1555.4	1569.3	1555.4	1552.0	1552.0	1576.2
45°	1451.7	1451.7	1451.7	1462.1	1451.7	1455.2	1469.0	1462.1	1469.0	1465.6	1489.8
47.5°	1372.2	1355.0	1351.5	1372.2	1368.8	1372.2	1372.2	1375.7	1379.2	1372.2	1382.6
50°	1258.2	1251.3	1251.3	1254.7	1258.2	1265.1	1275.5	1282.4	1275.5	1285.8	1289.3
52.5°	1147.6	1140.7	1144.1	1157.9	1164.8	1161.4	1178.7	1182.1	1178.7	1185.6	1185.6
55°	1019.7	1012.8	1023.1	1040.4	1050.8	1061.2	1078.4	1064.6	1078.4	1081.9	1085.3
57.5°	888.3	884.9	888.3	905.6	916.0	940.2	967.8	967.8	981.7	971.3	981.7
60°	743.2	743.2	757.0	767.3	795.0	812.3	839.9	853.8	867.6	881.4	874.5
62.5°	604.9	608.3	618.7	642.9	660.2	684.4	715.5	729.3	753.5	767.3	760.4
65°	480.5	480.5	487.4	508.1	525.4	556.5	584.2	615.3	629.1	636.0	639.5
67.5°	359.5	356.0	369.8	383.7	401.0	432.1	463.2	480.5	504.7	511.6	508.1
70°	242.0	245.4	252.3	266.2	286.9	311.1	345.7	359.5	373.3	380.2	373.3
72.5°	152.1	152.1	155.5	169.4	183.2	200.5	224.7	238.5	255.8	259.2	252.3
75°	69.1	69.1	76.0	83.0	93.3	107.2	124.4	134.8	145.2	155.5	155.5
77.5°	13.8	17.3	20.7	20.7	27.7	38.0	48.4	58.8	69.1	69.1	69.1
80°	3.5	3.5	3.5	3.5	3.5	3.5	6.9	10.4	17.3	17.3	17.3
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°	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5
2.5°	2343.5	2364.3	2343.5	2333.1	2347.0	2343.5	2333.1	2336.6
5°	2333.1	2340.1	2347.0	2319.3	2336.6	2340.1	2333.1	2326.2
7.5°	2322.8	2326.2	2322.8	2315.9	2315.9	2315.9	2322.8	2322.8
10°	2319.3	2309.0	2291.7	2281.3	2291.7	2291.7	2288.2	2315.9
12.5°	2274.4	2288.2	2277.8	2257.1	2277.8	2274.4	2274.4	2281.3
15°	2239.8	2239.8	2246.7	2219.1	2232.9	2229.5	2229.5	2236.4
17.5°	2205.3	2205.3	2201.8	2194.9	2191.4	2201.8	2191.4	2208.7
20°	2156.9	2163.8	2184.5	2150.0	2160.3	2150.0	2150.0	2129.2
22.5°	2098.1	2132.7	2115.4	2111.9	2108.5	2111.9	2118.8	2094.6
25°	2060.1	2060.1	2067.0	2046.3	2046.3	2053.2	2049.7	2042.8
27.5°	2008.2	2004.8	2001.3	1994.4	2011.7	1997.9	1997.9	1997.9
30°	1935.6	1946.0	1942.6	1925.3	1946.0	1939.1	1928.7	1908.0
32.5°	1873.4	1887.3	1866.5	1863.1	1859.6	1863.1	1866.5	1849.2
35°	1797.4	1800.8	1800.8	1787.0	1790.5	1787.0	1780.1	1783.6
37.5°	1728.3	1724.8	1707.5	1700.6	1704.1	1704.1	1707.5	1700.6
40°	1631.5	1641.8	1641.8	1617.6	1624.6	1617.6	1617.6	1614.2
42.5°	1552.0	1555.4	1545.1	1534.7	1534.7	1531.2	1524.3	1531.2
45°	1469.0	1465.6	1455.2	1444.8	1444.8	1441.4	1434.5	1448.3
47.5°	1375.7	1368.8	1365.3	1351.5	1351.5	1330.8	1334.2	1348.0
50°	1282.4	1275.5	1261.6	1254.7	1244.3	1234.0	1230.5	1230.5
52.5°	1171.8	1171.8	1157.9	1144.1	1140.7	1133.7	1126.8	1130.3
55°	1075.0	1075.0	1064.6	1040.4	1026.6	1009.3	998.9	995.5
57.5°	964.4	957.5	936.7	909.1	895.2	881.4	871.0	871.0
60°	853.8	836.5	815.7	791.5	767.3	743.2	736.2	732.8
62.5°	732.8	715.5	677.5	649.8	632.5	618.7	604.9	615.3
65°	611.8	587.6	553.0	525.4	508.1	487.4	477.0	477.0
67.5°	483.9	459.7	425.2	397.5	380.2	366.4	352.6	352.6
70°	356.0	338.7	307.6	283.4	269.6	248.9	245.4	245.4
72.5°	242.0	221.2	197.0	179.7	165.9	152.1	145.2	141.7
75°	134.8	121.0	103.7	93.3	79.5	72.6	65.7	65.7
77.5°	55.3	44.9	34.6	27.7	20.7	17.3	13.8	17.3
80°	10.4	6.9	3.5	3.5	3.5	3.5	3.5	3.5
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)