

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: P209487

Luminaire Tested: **LDSQ6B60D010 EU6B60709024 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209487  
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 EU6B60709024 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 2400 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4719.8 lumens  
Efficiency: N/A  
Efficacy: 75.5 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

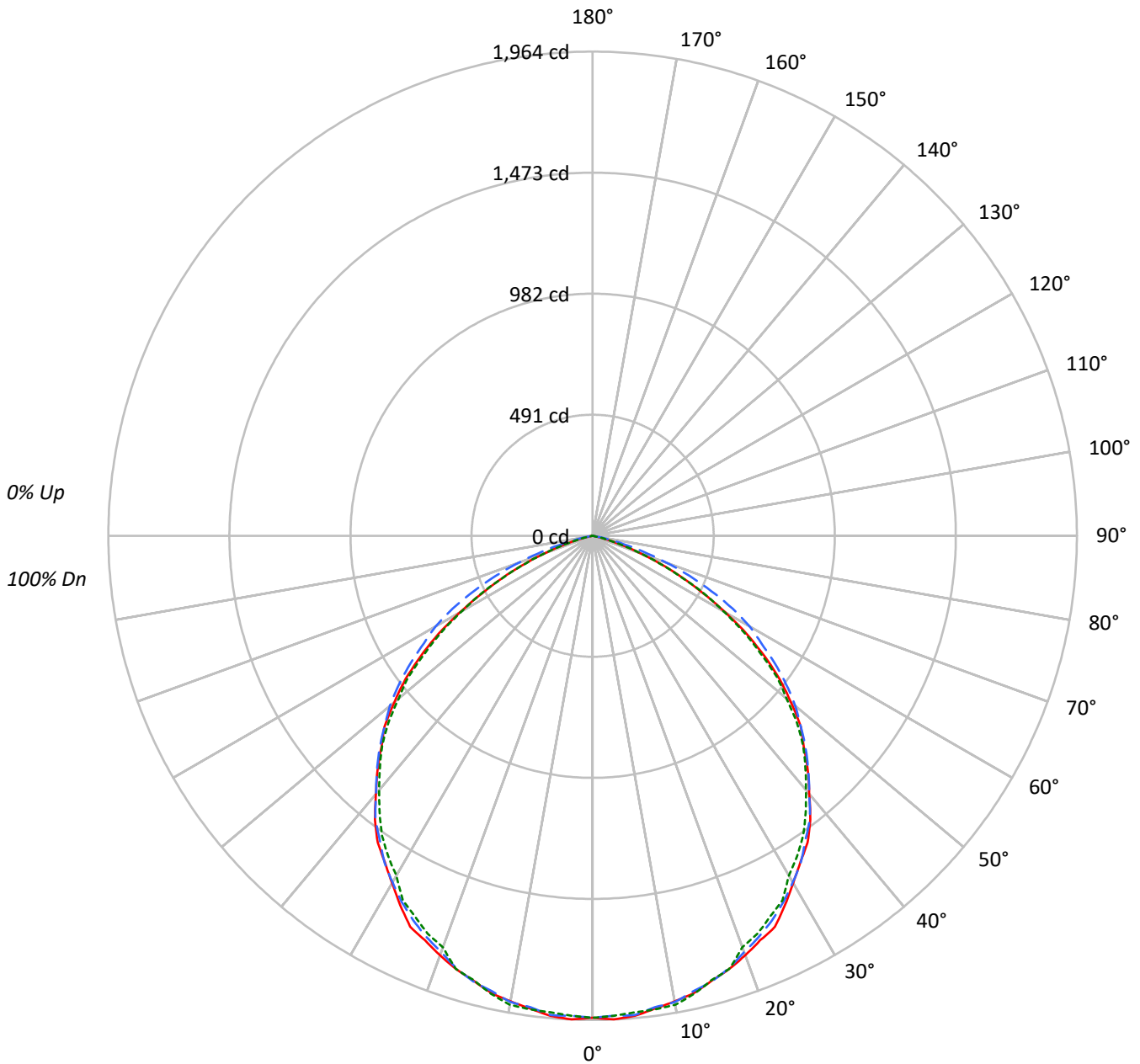
Input Watts (W): 62.48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	184.9	3.9
10°-20°	527.2	11.2
20°-30°	793.3	16.8
30°-40°	938.5	19.9
40°-50°	936.6	19.8
50°-60°	776.7	16.5
60°-70°	453.8	9.6
70°-80°	108.1	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°	1505.5	31.9
0°-40°	2444.0	51.8
0°-60°	4157.2	88.1
0°-90°	4719.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4719.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1955	1955	1955	1955	1955	
5°	1955	1945	1952	1946	1940	185
15°	1868	1867	1871	1863	1866	528
25°	1750	1730	1721	1716	1704	800
35°	1520	1505	1505	1496	1488	945
45°	1211	1212	1222	1210	1208	937
55°	851	881	902	878	830	755
65°	401	451	530	450	398	398
75°	58	84	130	82	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°	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9
2.5°	1963.6	1952.0	1960.7	1943.4	1954.9	1943.4	1946.3	1940.5	1952.0	1949.1	1946.3
5°	1954.9	1957.8	1952.0	1957.8	1949.1	1940.5	1949.1	1943.4	1926.1	1952.0	1946.3
7.5°	1934.7	1937.6	1931.8	1940.5	1934.7	1923.2	1946.3	1929.0	1926.1	1929.0	1940.5
10°	1917.4	1923.2	1920.3	1917.4	1920.3	1920.3	1914.5	1905.9	1914.5	1920.3	1917.4
12.5°	1900.1	1908.8	1903.0	1897.2	1891.5	1894.4	1900.1	1885.7	1885.7	1891.5	1908.8
15°	1868.4	1874.2	1877.1	1865.5	1865.5	1868.4	1879.9	1856.9	1868.4	1871.3	1874.2
17.5°	1842.5	1845.3	1845.3	1836.7	1842.5	1833.8	1842.5	1830.9	1842.5	1839.6	1845.3
20°	1810.7	1816.5	1810.7	1810.7	1805.0	1807.9	1807.9	1807.9	1799.2	1796.3	1802.1
22.5°	1776.1	1776.1	1770.4	1776.1	1770.4	1767.5	1781.9	1758.8	1781.9	1761.7	1779.0
25°	1750.2	1735.8	1727.1	1724.2	1735.8	1724.2	1730.0	1721.4	1727.1	1721.4	1724.2
27.5°	1689.6	1681.0	1678.1	1681.0	1681.0	1678.1	1689.6	1657.9	1678.1	1675.2	1675.2
30°	1626.2	1626.2	1632.0	1626.2	1632.0	1623.3	1634.9	1608.9	1626.2	1623.3	1626.2
32.5°	1568.5	1571.4	1571.4	1577.2	1568.5	1571.4	1571.4	1562.8	1568.5	1571.4	1565.7
35°	1519.5	1505.1	1505.1	1505.1	1505.1	1505.1	1510.9	1502.2	1510.9	1505.1	1505.1
37.5°	1450.3	1435.9	1435.9	1433.0	1447.4	1438.8	1453.2	1441.7	1441.7	1447.4	1447.4
40°	1366.7	1372.5	1363.8	1375.4	1372.5	1360.9	1386.9	1369.6	1381.1	1366.7	1378.2
42.5°	1291.7	1294.6	1291.7	1288.9	1300.4	1297.5	1309.0	1297.5	1294.6	1294.6	1314.8
45°	1211.0	1211.0	1211.0	1219.7	1211.0	1213.9	1225.4	1219.7	1225.4	1222.5	1242.7
47.5°	1144.7	1130.3	1127.4	1144.7	1141.8	1144.7	1144.7	1147.6	1150.5	1144.7	1153.3
50°	1049.5	1043.8	1043.8	1046.7	1049.5	1055.3	1064.0	1069.7	1064.0	1072.6	1075.5
52.5°	957.3	951.5	954.4	965.9	971.7	968.8	983.2	986.1	983.2	989.0	989.0
55°	850.6	844.8	853.5	867.9	876.5	885.2	899.6	888.1	899.6	902.5	905.4
57.5°	741.0	738.1	741.0	755.4	764.1	784.3	807.3	807.3	818.9	810.2	818.9
60°	619.9	619.9	631.5	640.1	663.2	677.6	700.7	712.2	723.7	735.3	729.5
62.5°	504.6	507.5	516.1	536.3	550.7	570.9	596.9	608.4	628.6	640.1	634.3
65°	400.8	400.8	406.6	423.9	438.3	464.2	487.3	513.2	524.8	530.5	533.4
67.5°	299.9	297.0	308.5	320.1	334.5	360.4	386.4	400.8	421.0	426.7	423.9
70°	201.8	204.7	210.5	222.0	239.3	259.5	288.3	299.9	311.4	317.2	311.4
72.5°	126.9	126.9	129.8	141.3	152.8	167.2	187.4	199.0	213.4	216.3	210.5
75°	57.7	57.7	63.4	69.2	77.9	89.4	103.8	112.5	121.1	129.8	129.8
77.5°	11.5	14.4	17.3	17.3	23.1	31.7	40.4	49.0	57.7	57.7	57.7
80°	2.9	2.9	2.9	2.9	2.9	2.9	5.8	8.7	14.4	14.4	14.4
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°	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9	1954.9
2.5°	1954.9	1972.2	1954.9	1946.3	1957.8	1954.9	1946.3	1949.1
5°	1946.3	1952.0	1957.8	1934.7	1949.1	1952.0	1946.3	1940.5
7.5°	1937.6	1940.5	1937.6	1931.8	1931.8	1931.8	1937.6	1937.6
10°	1934.7	1926.1	1911.7	1903.0	1911.7	1911.7	1908.8	1931.8
12.5°	1897.2	1908.8	1900.1	1882.8	1900.1	1897.2	1897.2	1903.0
15°	1868.4	1868.4	1874.2	1851.1	1862.6	1859.8	1859.8	1865.5
17.5°	1839.6	1839.6	1836.7	1830.9	1828.0	1836.7	1828.0	1842.5
20°	1799.2	1805.0	1822.3	1793.4	1802.1	1793.4	1793.4	1776.1
22.5°	1750.2	1779.0	1764.6	1761.7	1758.8	1761.7	1767.5	1747.3
25°	1718.5	1718.5	1724.2	1706.9	1706.9	1712.7	1709.8	1704.1
27.5°	1675.2	1672.3	1669.5	1663.7	1678.1	1666.6	1666.6	1666.6
30°	1614.7	1623.3	1620.4	1606.0	1623.3	1617.6	1608.9	1591.6
32.5°	1562.8	1574.3	1557.0	1554.1	1551.2	1554.1	1557.0	1542.6
35°	1499.3	1502.2	1502.2	1490.7	1493.6	1490.7	1484.9	1487.8
37.5°	1441.7	1438.8	1424.4	1418.6	1421.5	1421.5	1424.4	1418.6
40°	1360.9	1369.6	1369.6	1349.4	1355.2	1349.4	1349.4	1346.5
42.5°	1294.6	1297.5	1288.9	1280.2	1280.2	1277.3	1271.6	1277.3
45°	1225.4	1222.5	1213.9	1205.2	1205.2	1202.4	1196.6	1208.1
47.5°	1147.6	1141.8	1138.9	1127.4	1127.4	1110.1	1113.0	1124.5
50°	1069.7	1064.0	1052.4	1046.7	1038.0	1029.4	1026.5	1026.5
52.5°	977.5	977.5	965.9	954.4	951.5	945.7	940.0	942.9
55°	896.7	896.7	888.1	867.9	856.4	841.9	833.3	830.4
57.5°	804.5	798.7	781.4	758.3	746.8	735.3	726.6	726.6
60°	712.2	697.8	680.5	660.3	640.1	619.9	614.2	611.3
62.5°	611.3	596.9	565.1	542.1	527.7	516.1	504.6	513.2
65°	510.4	490.2	461.3	438.3	423.9	406.6	397.9	397.9
67.5°	403.7	383.5	354.7	331.6	317.2	305.6	294.1	294.1
70°	297.0	282.6	256.6	236.4	224.9	207.6	204.7	204.7
72.5°	201.8	184.5	164.4	149.9	138.4	126.9	121.1	118.2
75°	112.5	100.9	86.5	77.9	66.3	60.6	54.8	54.8
77.5°	46.1	37.5	28.8	23.1	17.3	14.4	11.5	14.4
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



Report Generated By E9808895 / USPTCWHP6082093







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









(END OF REPORT)