

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: P209331

Luminaire Tested: **LDSQ6B20D010 EU6B10208035 6LBSQ1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P209331
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35360)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ6B20D010 EU6B10208035 6LBSQ1LI
Description: PORTFOLIO LD6 SERIES 6" RECESSED FIXTURE WITH A SQUARE LOW
IRIDESCENT TRIM.
MEDIUM DISTRIBUTION WITH SPECULAR CLEAR TRIM
WATTAGE D010TR-21.86 W DE010-20.46 W D5LT-21.24 W DMX-20.89 W DL2-22.5 W
DL3-21.8 6 W DLE-22.46 W
Light Source: HIGH LUMEN LED 3500 K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2069.9 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 0.92 / 0.92 / 0.95
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

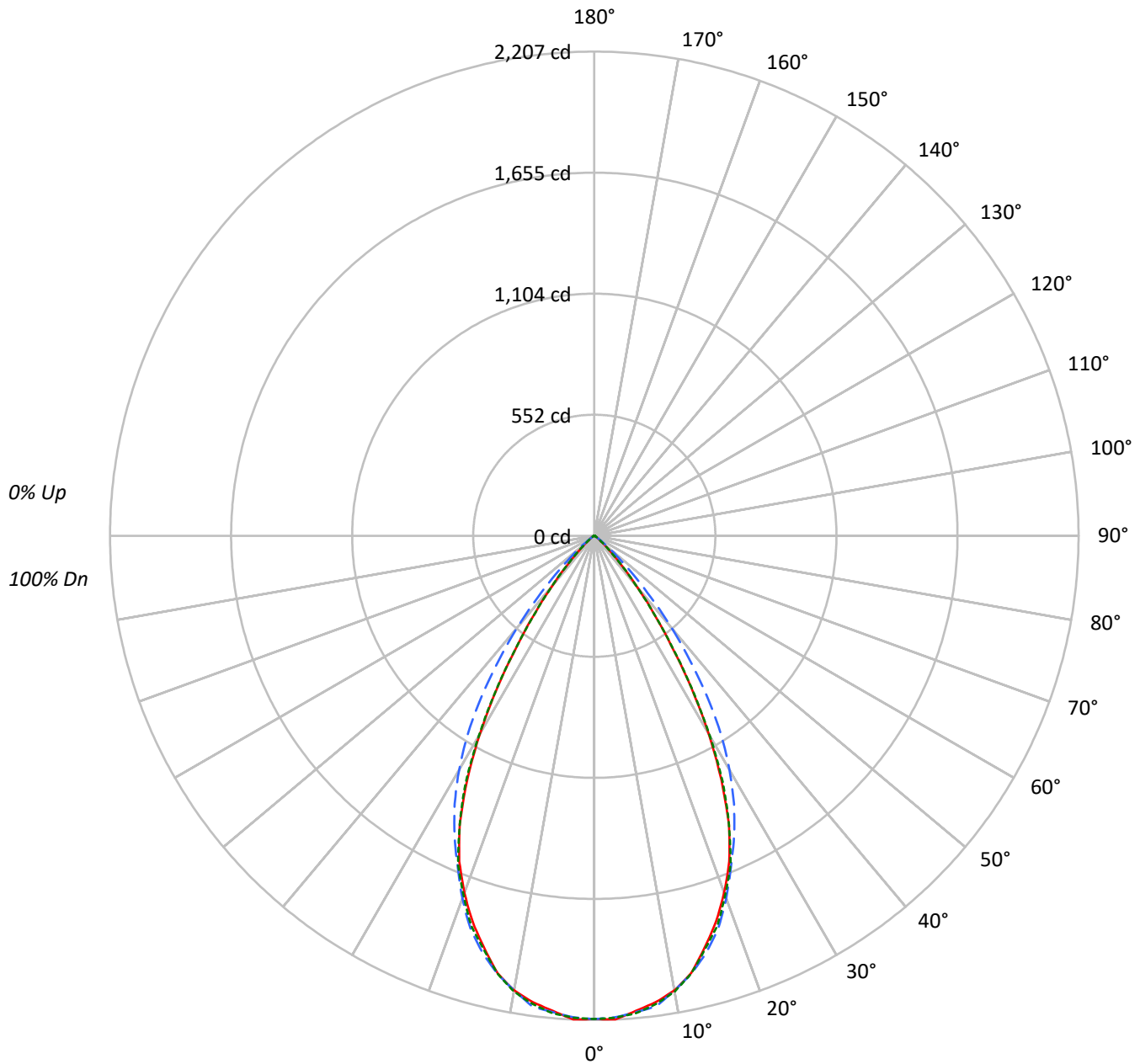
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P209331

CATALOG NUMBER: LDSQ6B20D010 EU6B10208035 6LBSQ1LI

Luminous Intensity Polar Plot





TEST NUMBER: P209331

CATALOG NUMBER: LDSQ6B20D010 EU6B10208035 6LBSQ1LI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20							
RC	80				70				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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93						
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	87						
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	80						
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75						
5	92	83	78	73	90	82	77	73	81	76	72	79	75	72	77	74	71	69						
6	87	78	72	68	86	77	72	67	76	71	67	74	70	67	73	69	66	65						
7	83	73	67	63	81	73	67	63	71	66	62	70	66	62	69	65	62	60						
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56						
9	75	65	59	55	74	64	59	55	64	58	55	63	58	54	62	57	54	53						
10	71	61	55	52	70	61	55	51	60	55	51	59	55	51	59	54	51	50						

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°			



TEST NUMBER: P209331

CATALOG NUMBER: LDSQ6B20D010 EU6B10208035 6LBSQ1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.2	10.0
10°-20°	548.5	26.5
20°-30°	673.2	32.5
30°-40°	464.7	22.5
40°-50°	145.3	7.0
50°-60°	22.7	1.1
60°-70°	6.6	0.3
70°-80°	2.2	0.1
80°-90°	0.5	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°	1428.0	69.0
0°-40°	1892.7	91.4
0°-60°	2060.7	99.6
0°-90°	2069.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2069.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2203	2203	2203	2203	2203	
5°	2174	2182	2179	2180	2185	205
15°	1943	1971	1968	1965	1950	543
25°	1450	1488	1507	1498	1452	650
35°	612	724	898	731	615	391
45°	115	158	253	156	118	103
55°	19	21	24	21	18	19
65°	6	7	6	7	6	6
75°	1	1	1	1	1	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P209331

CATALOG NUMBER: LDSQ6B20D010 EU6B10208035 6LBSQ1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6
2.5°	2206.8	2176.3	2195.7	2191.5	2202.6	2209.6	2202.6	2215.1	2206.8	2197.1	2199.9
5°	2173.5	2177.7	2176.3	2179.0	2181.8	2181.8	2195.7	2197.1	2199.9	2179.0	2184.6
7.5°	2144.3	2144.3	2151.3	2148.5	2158.2	2155.5	2156.8	2167.9	2169.3	2163.8	2159.6
10°	2104.1	2098.5	2091.6	2091.6	2104.1	2105.5	2116.6	2118.0	2126.3	2104.1	2106.9
12.5°	2041.6	2038.9	2027.8	2033.3	2043.0	2037.5	2055.5	2056.9	2054.1	2044.4	2050.0
15°	1943.1	1954.2	1951.4	1950.0	1972.2	1969.5	1968.1	1972.2	1973.6	1968.1	1963.9
17.5°	1844.6	1854.3	1855.7	1858.4	1862.6	1866.8	1872.3	1887.6	1882.0	1877.9	1891.7
20°	1730.7	1726.6	1737.7	1748.8	1753.0	1753.0	1761.3	1772.4	1764.1	1758.5	1759.9
22.5°	1607.2	1614.2	1608.6	1619.7	1625.3	1632.2	1640.5	1650.2	1643.3	1628.0	1646.1
25°	1450.4	1454.5	1472.6	1471.2	1479.5	1496.2	1508.7	1508.7	1508.7	1507.3	1507.3
27.5°	1253.3	1250.5	1272.7	1288.0	1308.8	1335.2	1351.8	1378.2	1382.4	1378.2	1368.5
30°	1042.3	1039.6	1067.3	1086.7	1124.2	1136.7	1182.5	1207.5	1233.9	1232.5	1225.5
32.5°	823.0	828.6	850.8	878.6	909.1	948.0	991.0	1046.5	1070.1	1075.6	1063.2
35°	612.1	620.4	641.2	664.8	702.3	745.3	805.0	857.7	898.0	898.0	888.3
37.5°	441.4	444.1	463.6	478.8	517.7	556.6	607.9	680.1	705.1	714.8	705.1
40°	301.2	301.2	312.3	328.9	360.9	394.2	441.4	495.5	531.6	546.8	530.2
42.5°	191.5	194.3	202.6	213.7	237.3	266.5	302.6	342.8	369.2	380.3	365.0
45°	115.2	118.0	124.9	133.2	148.5	166.6	191.5	220.7	242.9	252.6	245.7
47.5°	69.4	72.2	74.9	80.5	91.6	104.1	116.6	133.2	147.1	148.5	145.7
50°	40.2	40.2	43.0	47.2	52.7	59.7	66.6	76.3	80.5	86.1	80.5
52.5°	26.4	26.4	26.4	27.8	30.5	33.3	36.1	41.6	44.4	44.4	43.0
55°	19.4	19.4	19.4	19.4	20.8	20.8	20.8	22.2	23.6	23.6	23.6
57.5°	13.9	13.9	13.9	15.3	15.3	15.3	13.9	13.9	13.9	13.9	13.9
60°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	9.7	9.7	9.7
62.5°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
65°	5.6	5.6	5.6	6.9	6.9	6.9	6.9	5.6	5.6	5.6	5.6
67.5°	4.2	4.2	4.2	5.6	5.6	5.6	5.6	5.6	4.2	4.2	4.2
70°	2.8	2.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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



TEST NUMBER: P209331

CATALOG NUMBER: LDSQ6B20D010 EU6B10208035 6LBSQ1LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6	2202.6
2.5°	2208.2	2201.3	2201.3	2201.3	2198.5	2201.3	2205.4	2198.5
5°	2184.6	2187.4	2174.9	2184.6	2188.8	2181.8	2198.5	2184.6
7.5°	2163.8	2159.6	2140.2	2154.1	2162.4	2165.2	2163.8	2152.7
10°	2122.1	2112.4	2104.1	2104.1	2101.3	2099.9	2115.2	2109.6
12.5°	2047.2	2054.1	2041.6	2048.6	2043.0	2044.4	2045.8	2043.0
15°	1983.3	1976.4	1959.8	1970.9	1963.9	1957.0	1970.9	1950.0
17.5°	1883.4	1882.0	1872.3	1865.4	1868.2	1866.8	1873.7	1864.0
20°	1765.4	1768.2	1762.7	1759.9	1755.7	1746.0	1754.3	1743.2
22.5°	1637.8	1640.5	1646.1	1635.0	1636.4	1622.5	1635.0	1622.5
25°	1508.7	1507.3	1500.3	1494.8	1479.5	1464.3	1461.5	1451.8
27.5°	1367.1	1357.4	1340.7	1322.7	1299.1	1278.3	1276.9	1270.0
30°	1211.7	1190.8	1160.3	1131.2	1095.1	1063.2	1063.2	1052.0
32.5°	1047.9	1000.7	959.1	923.0	875.8	857.7	839.7	830.0
35°	852.2	810.5	760.6	700.9	678.7	634.3	637.1	614.9
37.5°	667.6	616.2	569.1	520.5	481.6	460.8	449.7	438.6
40°	495.5	445.5	394.2	362.2	327.6	309.5	302.6	299.8
42.5°	338.7	297.0	263.7	237.3	219.3	199.9	194.3	191.5
45°	220.7	197.1	166.6	145.7	133.2	122.1	122.1	118.0
47.5°	131.9	116.6	101.3	87.4	79.1	72.2	69.4	68.0
50°	73.6	65.2	56.9	51.4	45.8	41.6	40.2	40.2
52.5°	40.2	36.1	33.3	29.1	26.4	26.4	26.4	25.0
55°	20.8	20.8	20.8	20.8	19.4	19.4	19.4	18.0
57.5°	13.9	13.9	15.3	15.3	15.3	13.9	13.9	13.9
60°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
62.5°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
65°	5.6	6.9	6.9	6.9	6.9	5.6	5.6	5.6
67.5°	4.2	5.6	5.6	5.6	4.2	4.2	4.2	4.2
70°	4.2	4.2	4.2	4.2	4.2	2.8	2.8	2.8
72.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	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)