

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: P136925

Luminaire Tested: **LDSQ6A30D010TE ESQ6A30830 6LSQ1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23674)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ6A30D010TE ESQ6A30830 6LSQ1H
Description: PORTFOLIO LED SQUARE 6 INCH 60 DEGREE CUTOFF RECESSED DOWNLIGHT
MEDIUM DISTRIBUTION WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2708.0 lumens
Efficiency: N/A
Efficacy: 59.6 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.02 / 1.05
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

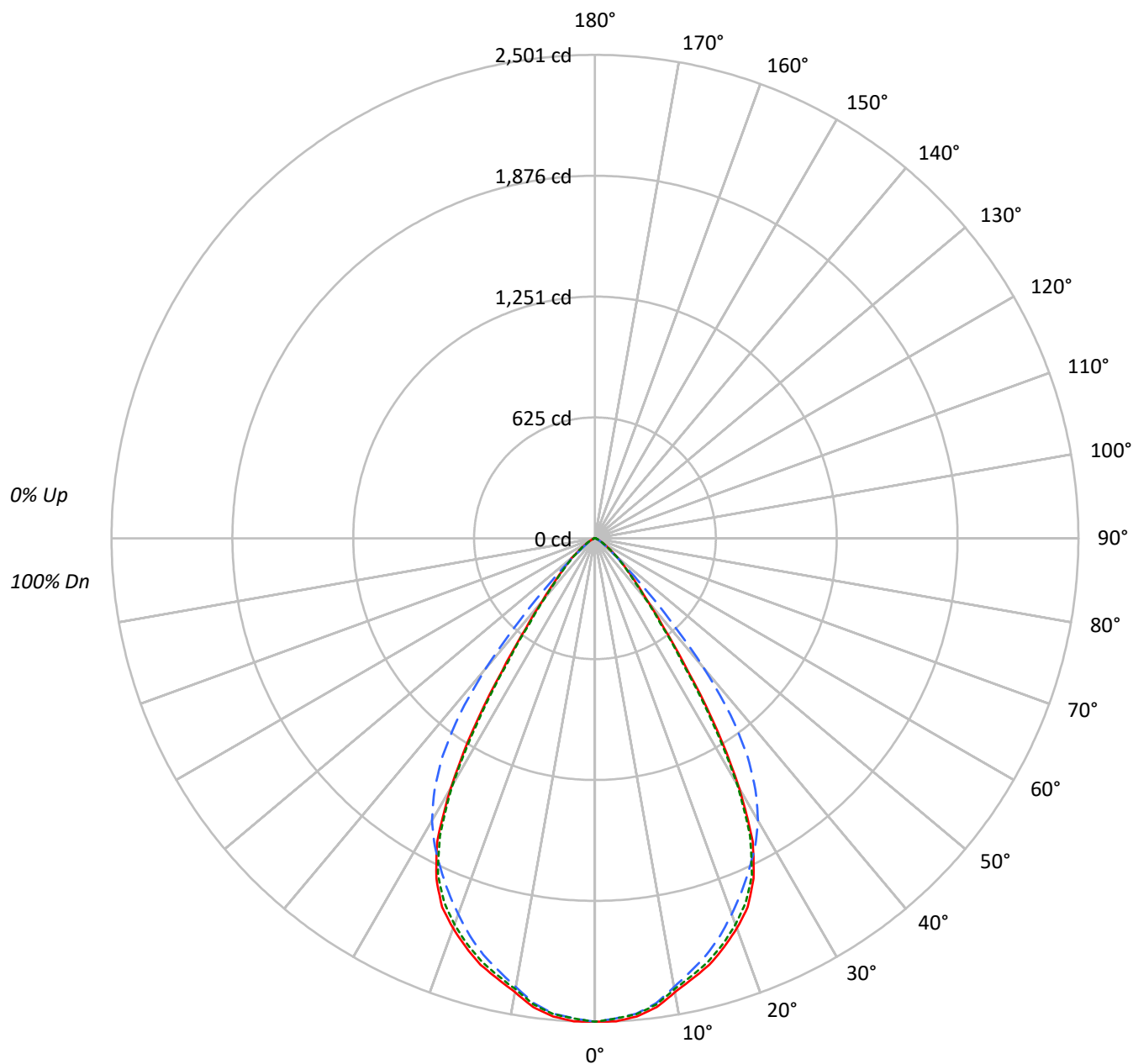
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74
5	90	81	75	71	89	80	75	70	79	74	70	77	73	69	75	72	68
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63
7	81	71	65	60	79	70	64	60	69	64	60	68	63	59	67	62	59
8	77	66	60	56	75	66	60	56	65	59	55	64	59	55	63	58	55
9	73	62	56	52	71	62	56	52	61	55	52	60	55	51	59	55	51
10	69	59	53	49	68	58	52	48	57	52	48	57	52	48	56	51	48

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	107691	107691	107691
5°	107324	106672	106801
10°	104228	103043	103568
15°	101844	99428	101037
20°	98350	94767	97383
25°	92258	89688	91260
30°	74281	83847	73237
35°	44083	72214	42033
40°	23825	49168	22639
45°	14827	20684	14279
50°	9867	8058	9264
55°	5870	4286	5645
60°	3625	2850	3367
65°	2139	1834	2139
70°	1511	1511	1133
75°	998	998	998
80°	744	744	744
85°	0	1482	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.4	8.6
10°-20°	631.8	23.3
20°-30°	864.2	31.9
30°-40°	654.5	24.2
40°-50°	227.2	8.4
50°-60°	68.0	2.5
60°-70°	21.6	0.8
70°-80°	6.6	0.2
80°-90°	1.7	0.1
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°	1728.4	63.8
0°-40°	2382.9	88.0
0°-60°	2678.1	98.9
0°-90°	2708.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2501	2501	2501	2501	2501	
5°	2483	2474	2468	2471	2471	234
15°	2285	2256	2231	2250	2267	642
25°	1942	1914	1888	1903	1921	870
35°	839	1024	1374	1010	800	545
45°	244	260	340	256	234	198
55°	78	75	57	74	75	74
65°	21	21	18	21	21	23
75°	6	6	6	6	6	6
85°	0	0	3	2	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2
2.5°	2501.2	2489.2	2477.2	2486.2	2498.2	2483.2	2486.2	2486.2	2477.2	2486.2	2480.2
5°	2483.2	2474.1	2462.1	2471.1	2480.2	2468.1	2468.1	2468.1	2462.1	2468.1	2465.1
7.5°	2447.1	2435.1	2423.0	2432.1	2441.1	2429.1	2426.0	2429.1	2420.0	2426.0	2423.0
10°	2384.0	2374.9	2362.9	2371.9	2377.9	2362.9	2359.9	2362.9	2350.9	2356.9	2356.9
12.5°	2332.9	2326.8	2311.8	2317.8	2320.8	2305.8	2299.8	2299.8	2287.8	2293.8	2290.8
15°	2284.8	2275.7	2260.7	2263.7	2266.7	2245.7	2239.7	2236.7	2224.6	2230.6	2227.6
17.5°	2218.6	2212.6	2194.6	2197.6	2194.6	2176.5	2164.5	2161.5	2149.5	2155.5	2149.5
20°	2146.5	2137.4	2119.4	2116.4	2110.4	2089.3	2080.3	2077.3	2062.3	2068.3	2065.3
22.5°	2065.3	2053.3	2035.2	2032.2	2026.2	2002.2	1993.1	1987.1	1975.1	1981.1	1975.1
25°	1942.0	1933.0	1918.0	1918.0	1921.0	1906.0	1903.0	1900.0	1884.9	1887.9	1884.9
27.5°	1767.7	1761.7	1755.7	1758.7	1773.7	1773.7	1788.7	1794.7	1788.7	1794.7	1788.7
30°	1494.1	1497.1	1515.2	1533.2	1569.3	1596.3	1632.4	1659.5	1671.5	1686.5	1674.5
32.5°	1175.4	1166.4	1202.5	1244.6	1301.7	1361.8	1434.0	1491.1	1530.2	1545.2	1527.2
35°	838.7	835.7	868.8	913.9	980.0	1067.2	1175.4	1274.7	1343.8	1373.9	1343.8
37.5°	586.2	589.2	607.3	637.3	688.4	763.6	877.8	1001.1	1106.3	1151.4	1100.3
40°	423.9	420.9	432.9	450.9	481.0	529.1	607.3	709.5	814.7	874.8	808.7
42.5°	318.7	315.7	321.7	330.7	345.7	369.8	411.9	466.0	532.1	574.2	523.1
45°	243.5	243.5	243.5	249.5	255.5	264.6	279.6	297.6	321.7	339.7	315.7
47.5°	189.4	189.4	189.4	192.4	195.4	195.4	195.4	192.4	195.4	198.4	192.4
50°	147.3	147.3	147.3	147.3	147.3	144.3	138.3	126.3	123.3	120.3	120.3
52.5°	105.2	105.2	105.2	108.2	111.2	105.2	96.2	87.2	81.2	81.2	81.2
55°	78.2	78.2	78.2	78.2	78.2	72.2	66.1	60.1	57.1	57.1	57.1
57.5°	57.1	57.1	57.1	57.1	54.1	51.1	48.1	45.1	42.1	42.1	42.1
60°	42.1	42.1	42.1	42.1	39.1	36.1	36.1	33.1	33.1	33.1	33.1
62.5°	30.1	30.1	30.1	30.1	30.1	27.1	27.1	24.1	24.1	24.1	24.1
65°	21.0	21.0	21.0	21.0	21.0	21.0	18.0	18.0	18.0	18.0	18.0
67.5°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
70°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
72.5°	6.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
75°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	0.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
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°	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2
2.5°	2480.2	2495.2	2495.2	2483.2	2474.1	2489.2	2492.2	2486.2
5°	2465.1	2477.2	2477.2	2465.1	2456.1	2474.1	2474.1	2471.1
7.5°	2423.0	2438.1	2435.1	2426.0	2417.0	2432.1	2438.1	2432.1
10°	2356.9	2371.9	2371.9	2362.9	2353.9	2371.9	2374.9	2368.9
12.5°	2293.8	2308.8	2314.8	2305.8	2302.8	2317.8	2323.8	2317.8
15°	2230.6	2248.7	2251.7	2248.7	2248.7	2266.7	2272.7	2266.7
17.5°	2155.5	2173.5	2179.5	2176.5	2179.5	2197.6	2206.6	2200.6
20°	2068.3	2083.3	2089.3	2089.3	2092.4	2116.4	2128.4	2125.4
22.5°	1975.1	1993.1	2002.2	2005.2	2008.2	2032.2	2044.3	2038.2
25°	1887.9	1903.0	1903.0	1903.0	1900.0	1918.0	1927.0	1921.0
27.5°	1782.7	1785.7	1776.7	1755.7	1740.6	1746.6	1752.6	1737.6
30°	1650.4	1632.4	1599.3	1554.2	1515.2	1500.1	1497.1	1473.1
32.5°	1482.1	1431.0	1361.8	1283.7	1214.5	1178.5	1163.4	1136.4
35°	1265.6	1169.4	1061.2	959.0	880.8	841.8	826.7	799.7
37.5°	989.1	868.8	754.6	667.4	616.3	583.2	574.2	559.2
40°	688.4	592.2	517.1	463.0	429.9	414.9	411.9	402.8
42.5°	453.9	399.8	360.8	333.7	318.7	309.6	309.6	303.6
45°	291.6	273.6	261.5	249.5	240.5	237.5	237.5	234.5
47.5°	189.4	192.4	192.4	189.4	183.4	180.4	183.4	180.4
50°	126.3	135.3	141.3	144.3	141.3	138.3	141.3	138.3
52.5°	87.2	96.2	105.2	108.2	105.2	102.2	102.2	102.2
55°	60.1	66.1	72.2	75.2	75.2	75.2	75.2	75.2
57.5°	45.1	48.1	51.1	54.1	57.1	54.1	57.1	54.1
60°	33.1	36.1	39.1	39.1	42.1	42.1	42.1	39.1
62.5°	24.1	27.1	27.1	30.1	30.1	30.1	30.1	30.1
65°	18.0	18.0	21.0	21.0	21.0	21.0	21.0	21.0
67.5°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
70°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	9.0
72.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	6.0
75°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	3.0	3.0	0.0	3.0	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)