

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: P136924

Luminaire Tested: **LDSQ6A30D010TE ESQ6A30827 6LSQ1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136924
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 ESQ6A30827 6LSQ1H
Description: PORTFOLIO LED SQUARE 6 INCH 60 DEGREE CUTOFF RECESSED DOWNLIGHT
MEDIUM DISTRIBUTION WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2587.0 lumens
Efficiency: N/A
Efficacy: 57.0 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

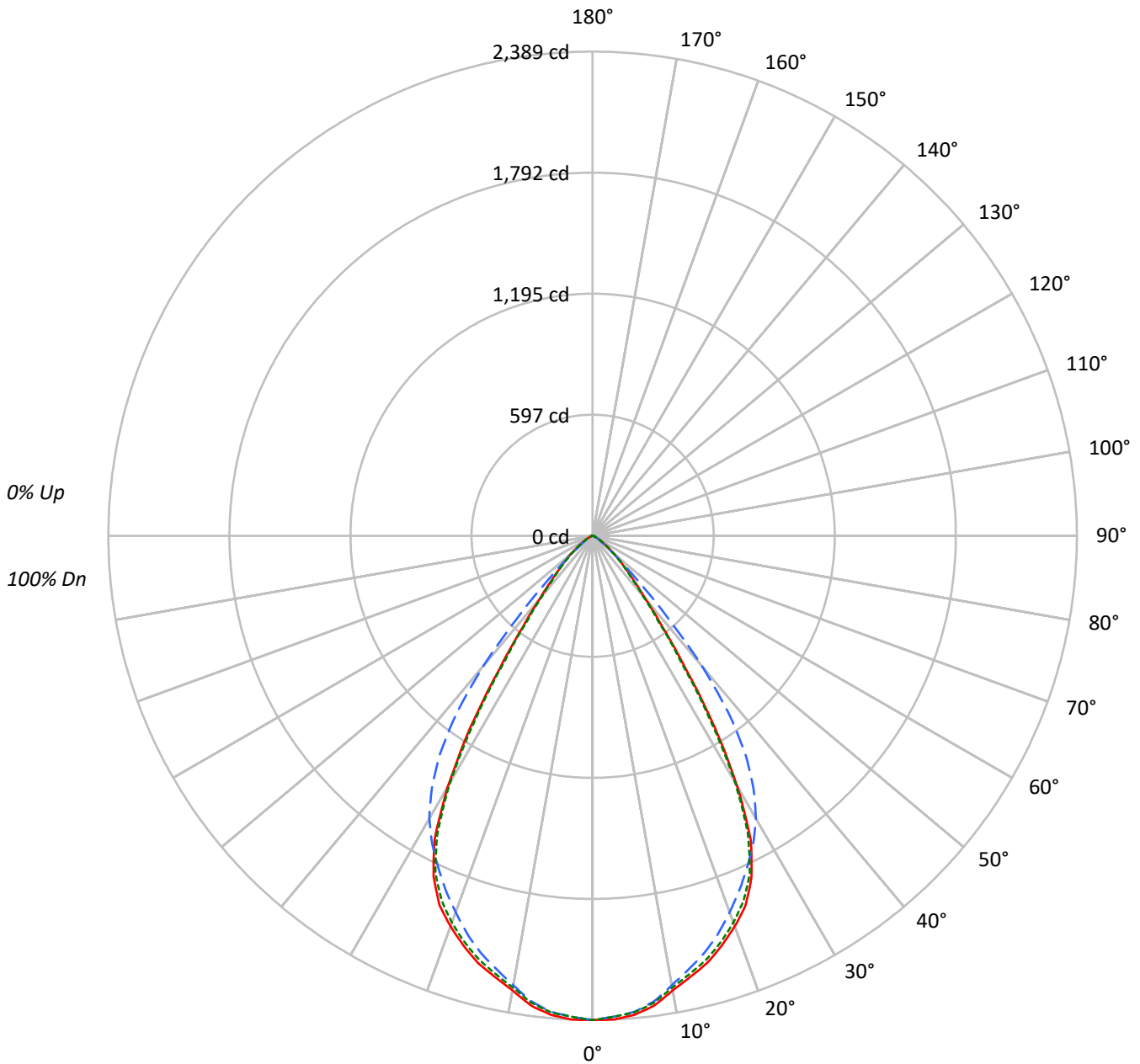
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136924

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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			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	100	100	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	85	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79	79	79	79
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72	72	72	72
5	90	81	75	71	89	80	75	70	79	74	70	77	73	69	75	72	68	67	67	67	67
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62	62	62	62
7	81	71	65	60	79	70	64	60	69	64	60	68	63	59	67	62	59	57	57	57	57
8	77	66	60	56	75	66	60	56	65	59	55	64	59	55	63	58	55	53	53	53	53
9	73	62	56	52	71	62	56	52	61	55	52	60	55	51	59	55	51	50	50	50	50
10	69	59	53	49	68	58	52	48	57	52	48	57	52	48	56	51	48	47	47	47	47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	102877	102877	102877
5°	102527	101909	102030
10°	99568	98440	98942
15°	97293	94988	96522
20°	93956	90534	93035
25°	88139	85683	87184
30°	70960	80103	69961
35°	42117	68987	40152
40°	22757	46971	21628
45°	14163	19759	13639
50°	9424	7696	8848
55°	5607	4099	5390
60°	3462	2721	3212
65°	2048	1752	2048
70°	1448	1448	1083
75°	948	948	948
80°	719	719	719
85°	0	1433	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.0	8.6
10°-20°	603.6	23.3
20°-30°	825.5	31.9
30°-40°	625.2	24.2
40°-50°	217.0	8.4
50°-60°	65.0	2.5
60°-70°	20.6	0.8
70°-80°	6.4	0.2
80°-90°	1.6	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°	1651.2	63.8
0°-40°	2276.4	88.0
0°-60°	2558.4	98.9
0°-90°	2587.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2587.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2389	2389	2389	2389	2389	
5°	2372	2364	2358	2361	2361	223
15°	2183	2155	2131	2150	2165	613
25°	1855	1828	1804	1818	1835	831
35°	801	978	1312	965	764	521
45°	233	248	324	244	224	189
55°	75	72	55	70	72	71
65°	20	20	17	20	20	22
75°	6	6	6	6	6	6
85°	0	0	3	1	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°	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4
2.5°	2389.4	2378.0	2366.5	2375.1	2386.6	2372.2	2375.1	2375.1	2366.5	2375.1	2369.3
5°	2372.2	2363.6	2352.1	2360.7	2369.3	2357.9	2357.9	2357.9	2352.1	2357.9	2355.0
7.5°	2337.7	2326.3	2314.8	2323.4	2332.0	2320.5	2317.6	2320.5	2311.9	2317.6	2314.8
10°	2277.4	2268.8	2257.3	2266.0	2271.7	2257.3	2254.5	2257.3	2245.8	2251.6	2251.6
12.5°	2228.6	2222.9	2208.5	2214.3	2217.1	2202.8	2197.0	2197.0	2185.5	2191.3	2188.4
15°	2182.7	2174.0	2159.7	2162.6	2165.4	2145.3	2139.6	2136.7	2125.2	2131.0	2128.1
17.5°	2119.5	2113.7	2096.5	2099.4	2096.5	2079.3	2067.8	2064.9	2053.4	2059.2	2053.4
20°	2050.6	2041.9	2024.7	2021.8	2016.1	1996.0	1987.4	1984.5	1970.1	1975.9	1973.0
22.5°	1973.0	1961.5	1944.3	1941.4	1935.7	1912.7	1904.1	1898.3	1886.9	1892.6	1886.9
25°	1855.3	1846.6	1832.3	1832.3	1835.2	1820.8	1817.9	1815.1	1800.7	1803.6	1800.7
27.5°	1688.7	1682.9	1677.2	1680.1	1694.4	1694.4	1708.8	1714.5	1708.8	1714.5	1708.8
30°	1427.3	1430.2	1447.5	1464.7	1499.1	1525.0	1559.5	1585.3	1596.8	1611.2	1599.7
32.5°	1122.9	1114.3	1148.8	1189.0	1243.5	1301.0	1369.9	1424.5	1461.8	1476.2	1458.9
35°	801.3	798.4	830.0	873.1	936.2	1019.5	1122.9	1217.7	1283.8	1312.5	1283.8
37.5°	560.0	562.9	580.1	608.8	657.7	729.5	838.6	956.4	1056.9	1099.9	1051.1
40°	404.9	402.1	413.6	430.8	459.5	505.5	580.1	677.8	778.3	835.7	772.5
42.5°	304.4	301.6	307.3	315.9	330.3	353.2	393.5	445.1	508.3	548.5	499.7
45°	232.6	232.6	232.6	238.4	244.1	252.7	267.1	284.3	307.3	324.5	301.6
47.5°	180.9	180.9	180.9	183.8	186.7	186.7	186.7	183.8	186.7	189.5	183.8
50°	140.7	140.7	140.7	140.7	140.7	137.9	132.1	120.6	117.7	114.9	114.9
52.5°	100.5	100.5	100.5	103.4	106.3	100.5	91.9	83.3	77.5	77.5	77.5
55°	74.7	74.7	74.7	74.7	74.7	68.9	63.2	57.4	54.6	54.6	54.6
57.5°	54.6	54.6	54.6	54.6	51.7	48.8	46.0	43.1	40.2	40.2	40.2
60°	40.2	40.2	40.2	40.2	37.3	34.5	34.5	31.6	31.6	31.6	31.6
62.5°	28.7	28.7	28.7	28.7	28.7	25.8	25.8	23.0	23.0	23.0	23.0
65°	20.1	20.1	20.1	20.1	20.1	20.1	17.2	17.2	17.2	17.2	17.2
67.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
70°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
72.5°	5.7	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
75°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
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: P136924

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4	2389.4
2.5°	2369.3	2383.7	2383.7	2372.2	2363.6	2378.0	2380.8	2375.1
5°	2355.0	2366.5	2366.5	2355.0	2346.4	2363.6	2363.6	2360.7
7.5°	2314.8	2329.1	2326.3	2317.6	2309.0	2323.4	2329.1	2323.4
10°	2251.6	2266.0	2266.0	2257.3	2248.7	2266.0	2268.8	2263.1
12.5°	2191.3	2205.6	2211.4	2202.8	2199.9	2214.3	2220.0	2214.3
15°	2131.0	2148.2	2151.1	2148.2	2148.2	2165.4	2171.2	2165.4
17.5°	2059.2	2076.4	2082.1	2079.3	2082.1	2099.4	2108.0	2102.3
20°	1975.9	1990.2	1996.0	1996.0	1998.9	2021.8	2033.3	2030.5
22.5°	1886.9	1904.1	1912.7	1915.6	1918.4	1941.4	1952.9	1947.2
25°	1803.6	1817.9	1817.9	1817.9	1815.1	1832.3	1840.9	1835.2
27.5°	1703.1	1705.9	1697.3	1677.2	1662.8	1668.6	1674.3	1660.0
30°	1576.7	1559.5	1527.9	1484.8	1447.5	1433.1	1430.2	1407.2
32.5°	1415.9	1367.0	1301.0	1226.3	1160.3	1125.8	1111.4	1085.6
35°	1209.1	1117.2	1013.8	916.1	841.5	804.1	789.8	763.9
37.5°	944.9	830.0	720.9	637.6	588.7	557.2	548.5	534.2
40°	657.7	565.8	494.0	442.3	410.7	396.3	393.5	384.8
42.5°	433.7	382.0	344.6	318.8	304.4	295.8	295.8	290.1
45°	278.6	261.3	249.9	238.4	229.8	226.9	226.9	224.0
47.5°	180.9	183.8	183.8	180.9	175.2	172.3	175.2	172.3
50°	120.6	129.2	135.0	137.9	135.0	132.1	135.0	132.1
52.5°	83.3	91.9	100.5	103.4	100.5	97.6	97.6	97.6
55°	57.4	63.2	68.9	71.8	71.8	71.8	71.8	71.8
57.5°	43.1	46.0	48.8	51.7	54.6	51.7	54.6	51.7
60°	31.6	34.5	37.3	37.3	40.2	40.2	40.2	37.3
62.5°	23.0	25.8	25.8	28.7	28.7	28.7	28.7	28.7
65°	17.2	17.2	20.1	20.1	20.1	20.1	20.1	20.1
67.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
70°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	8.6
72.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	5.7
75°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	2.9	0.0	2.9	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)