

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: P136722

Luminaire Tested: **LDSQ6A10D010TE ESQ6A10835 6LSQ1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23378)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ6A10D010TE ESQ6A10835 6LSQ1LI
Description: PORTFOLIO LED SQUARE 6 INCH 60 DEGREE CUTOFF RECESSED DOWNLIGHT
MEDIUM DISTRIBUTION WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1257.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.92 / 0.93 / 0.95
Luminous Opening: Rectangular (W 0.46' x L: 0.46' x H: 0')
CIE Type: Direct

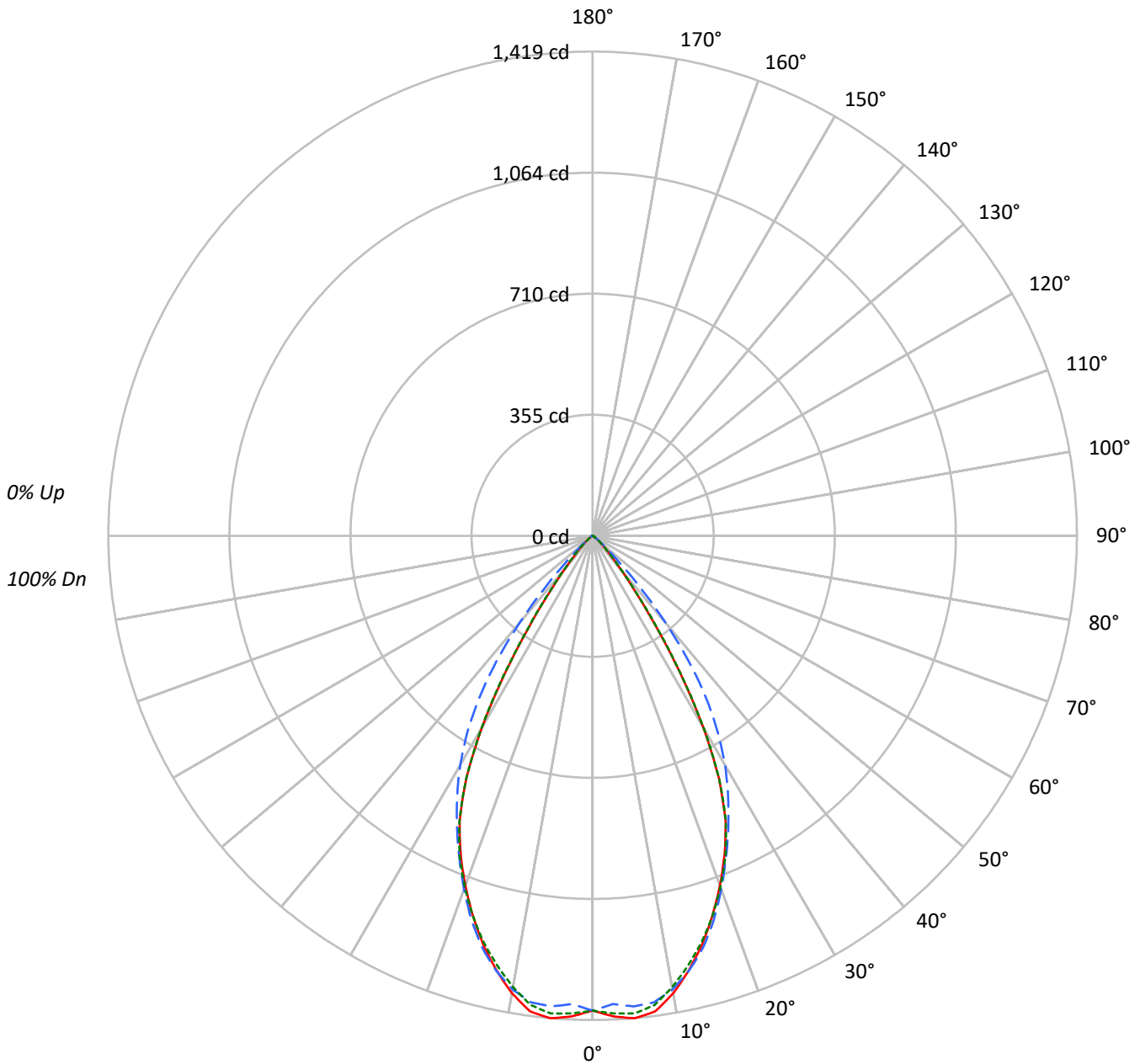
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94				94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87				87
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81				81
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	75				75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70				70
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66				66
7	84	74	68	64	82	74	68	64	72	67	64	71	67	63	70	66	63	62				62
8	79	70	64	60	78	69	64	60	68	63	60	67	63	59	66	62	59	58				58
9	76	66	60	56	75	66	60	56	65	59	56	64	59	56	63	59	56	54				54
10	72	62	57	53	71	62	56	53	61	56	53	60	56	52	60	55	52	51				51

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	71295	71295	71295
5°	73008	71207	72288
10°	70818	70241	69877
15°	65763	66320	65418
20°	59480	60085	59703
25°	52104	53156	52234
30°	38364	45896	38535
35°	19935	36218	20373
40°	8395	22214	8742
45°	3848	8246	3978
50°	1770	2463	1818
55°	884	992	884
60°	543	594	543
65°	352	424	352
70°	270	270	270
75°	119	238	119
80°	177	177	177
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	10.5
10°-20°	346.2	27.5
20°-30°	423.2	33.7
30°-40°	272.0	21.6
40°-50°	67.9	5.4
50°-60°	11.4	0.9
60°-70°	3.4	0.3
70°-80°	1.1	0.1
80°-90°	0.2	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°	901.1	71.7
0°-40°	1173.1	93.3
0°-60°	1252.3	99.6
0°-90°	1257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1419	1389	1384	1386	1405	134
15°	1240	1246	1250	1236	1233	346
25°	922	946	940	950	924	411
35°	319	420	579	428	326	211
45°	53	66	114	70	55	46
55°	10	11	11	11	10	10
65°	3	4	4	4	3	3
75°	1	1	1	1	1	1
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°	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4
2.5°	1410.1	1375.1	1402.5	1400.2	1376.8	1381.5	1385.6	1385.0	1384.4	1373.9	1398.4
5°	1419.4	1383.8	1411.8	1408.3	1386.7	1391.4	1393.7	1394.9	1392.0	1384.4	1407.7
7.5°	1406.0	1372.7	1399.6	1395.5	1378.6	1382.7	1384.4	1387.3	1383.2	1379.1	1401.3
10°	1361.1	1333.0	1358.1	1355.2	1344.1	1348.8	1350.0	1354.6	1350.0	1350.0	1369.8
12.5°	1303.9	1282.3	1305.0	1302.7	1298.6	1303.9	1302.1	1310.3	1303.3	1305.6	1323.7
15°	1239.7	1225.7	1244.3	1243.7	1244.3	1248.4	1243.2	1249.0	1242.6	1250.2	1265.9
17.5°	1167.3	1160.9	1175.5	1176.0	1180.7	1181.9	1173.7	1181.3	1172.0	1180.7	1194.1
20°	1090.8	1092.0	1103.7	1101.9	1108.9	1105.4	1093.7	1101.3	1092.0	1101.9	1112.4
22.5°	1010.3	1020.2	1026.6	1025.5	1034.8	1030.1	1015.5	1019.0	1009.7	1020.8	1027.2
25°	921.6	932.7	937.3	937.3	947.3	945.5	932.7	938.5	929.7	940.2	943.8
27.5°	800.8	814.8	818.3	825.3	842.2	845.7	840.4	852.1	848.6	859.7	858.5
30°	648.4	662.4	667.7	681.7	709.1	725.5	734.2	757.0	762.8	775.7	769.2
32.5°	478.0	489.7	497.3	518.3	554.5	587.7	617.5	651.3	669.4	683.4	671.8
35°	318.7	327.4	335.6	361.9	399.8	441.2	484.4	532.9	563.8	579.0	563.2
37.5°	200.2	206.0	211.3	230.5	260.9	299.4	345.5	401.0	443.6	461.7	441.8
40°	125.5	129.0	131.9	143.6	162.3	185.6	224.7	271.4	315.2	332.1	313.4
42.5°	80.5	82.3	84.0	90.5	100.4	115.0	136.6	165.8	196.1	207.8	195.5
45°	53.1	53.7	54.3	57.8	63.0	70.0	81.1	94.6	109.1	113.8	108.6
47.5°	35.0	35.0	35.6	37.9	40.9	44.9	49.0	52.5	57.2	59.5	56.6
50°	22.2	22.8	23.3	25.1	26.8	28.6	29.8	29.8	30.9	30.9	30.3
52.5°	13.4	13.4	14.0	14.6	16.9	18.7	18.7	17.5	17.5	17.5	16.9
55°	9.9	9.9	9.9	10.5	11.1	11.1	11.1	11.1	11.1	11.1	10.5
57.5°	7.6	7.6	7.6	8.2	8.2	8.2	8.2	7.6	7.6	7.6	7.6
60°	5.3	5.3	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.3
62.5°	4.1	4.1	4.1	4.7	4.7	4.7	4.7	4.7	4.7	4.1	4.1
65°	2.9	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.9	2.3	2.3	2.3	2.3
70°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
72.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
75°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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°	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4	1391.4
2.5°	1404.2	1406.0	1380.3	1385.6	1404.2	1385.6	1386.2	1401.3
5°	1409.5	1408.9	1382.7	1389.1	1400.2	1386.7	1387.3	1405.4
7.5°	1397.8	1392.6	1366.3	1373.9	1376.8	1367.5	1367.5	1387.3
10°	1361.6	1352.9	1328.4	1336.0	1330.7	1324.9	1323.1	1343.0
12.5°	1314.4	1304.4	1283.4	1290.4	1277.6	1277.6	1272.3	1290.4
15°	1255.4	1246.7	1232.1	1240.2	1221.0	1225.1	1216.9	1233.2
17.5°	1184.8	1179.0	1170.8	1180.7	1157.9	1165.0	1153.9	1167.9
20°	1103.7	1100.8	1099.6	1109.5	1086.2	1097.8	1085.0	1094.9
22.5°	1019.6	1019.6	1026.0	1039.5	1013.8	1026.6	1011.5	1017.3
25°	936.7	937.3	944.9	954.3	929.2	940.2	923.3	923.9
27.5°	848.6	843.4	851.5	849.8	818.3	824.7	806.6	803.1
30°	751.7	736.0	730.1	713.8	678.2	677.0	658.3	651.3
32.5°	645.5	615.7	597.7	564.4	518.9	508.4	491.4	483.3
35°	527.6	482.7	450.0	406.2	361.3	346.1	332.7	325.7
37.5°	398.0	346.7	309.3	267.3	235.2	223.0	211.9	207.2
40°	271.4	227.6	195.5	167.5	147.7	140.1	133.7	130.7
42.5°	167.5	139.5	120.8	103.9	92.8	88.7	85.8	84.0
45°	95.7	82.9	74.7	65.4	60.1	57.8	56.0	54.9
47.5°	53.1	49.6	46.7	42.6	39.1	37.4	36.8	36.2
50°	29.8	30.3	30.3	28.0	26.3	24.5	23.3	22.8
52.5°	17.5	18.7	19.3	17.5	15.2	14.0	14.0	13.4
55°	11.1	11.1	11.1	11.1	10.5	9.9	9.9	9.9
57.5°	7.6	7.6	8.2	8.2	8.2	7.6	7.6	7.0
60°	5.8	5.8	5.8	5.8	5.8	5.8	5.3	5.3
62.5°	4.7	4.7	4.7	4.7	4.7	4.1	4.1	4.1
65°	3.5	3.5	3.5	3.5	3.5	2.9	2.9	2.9
67.5°	2.3	2.9	2.3	2.3	2.3	2.3	2.3	2.3
70°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
72.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
75°	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.6
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)