

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: P136757

Luminaire Tested: **LDSQ6A15D010TE ESQ6A15930 6LSQ1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136757
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: LDSQ6A15D010TE ESQ6A15930 6LSQ1LI
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: 1462.5 lumens
Efficiency: N/A
Efficacy: 64.7 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

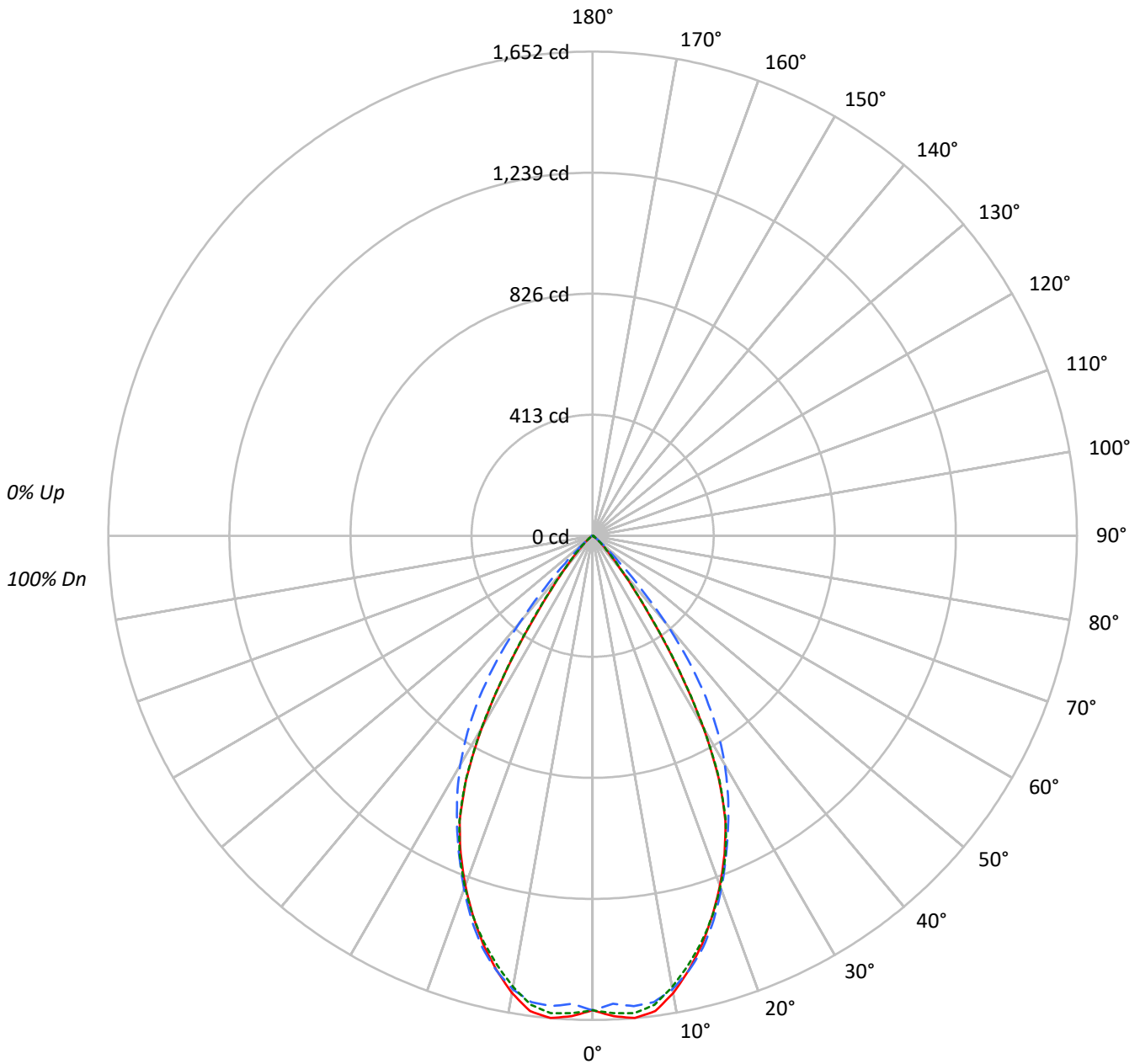
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136757

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQ1LI

Luminous Intensity Polar Plot





TEST NUMBER: P136757

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQ1LI

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	82952	82952	82952
5°	84946	82847	84107
10°	82400	81724	81303
15°	76516	77163	76118
20°	69207	69911	69464
25°	60619	61851	60777
30°	44641	53398	44842
35°	23194	42135	23701
40°	9766	25846	10174
45°	4478	9594	4623
50°	2057	2870	2112
55°	1027	1152	1027
60°	625	697	625
65°	412	497	412
70°	300	300	300
75°	119	277	119
80°	177	177	177
85°	0	0	0



TEST NUMBER: P136757

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQ1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	10.5
10°-20°	402.8	27.5
20°-30°	492.5	33.7
30°-40°	316.5	21.6
40°-50°	79.0	5.4
50°-60°	13.2	0.9
60°-70°	4.0	0.3
70°-80°	1.2	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°	1048.4	71.7
0°-40°	1364.9	93.3
0°-60°	1457.1	99.6
0°-90°	1462.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1462.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1652	1616	1611	1612	1635	155
15°	1442	1450	1455	1438	1435	403
25°	1072	1101	1094	1105	1075	478
35°	371	489	674	498	379	245
45°	62	77	132	82	64	53
55°	12	13	13	13	12	12
65°	3	4	4	4	3	4
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P136757

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQ1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9
2.5°	1640.7	1600.0	1631.8	1629.2	1602.0	1607.4	1612.1	1611.5	1610.7	1598.6	1627.0
5°	1651.5	1610.1	1642.7	1638.6	1613.5	1618.9	1621.6	1623.0	1619.6	1610.7	1637.9
7.5°	1635.9	1597.2	1628.4	1623.7	1604.0	1608.7	1610.7	1614.1	1609.4	1604.7	1630.4
10°	1583.7	1551.1	1580.3	1576.8	1564.0	1569.4	1570.7	1576.1	1570.7	1570.7	1593.8
12.5°	1517.1	1491.9	1518.5	1515.7	1511.0	1517.1	1515.0	1524.5	1516.4	1519.1	1540.2
15°	1442.4	1426.1	1447.8	1447.2	1447.8	1452.6	1446.4	1453.2	1445.8	1454.6	1473.0
17.5°	1358.2	1350.7	1367.7	1368.3	1373.8	1375.1	1365.7	1374.5	1363.6	1373.8	1389.4
20°	1269.2	1270.5	1284.2	1282.1	1290.2	1286.2	1272.6	1281.4	1270.5	1282.1	1294.4
22.5°	1175.5	1187.1	1194.5	1193.2	1204.0	1198.6	1181.6	1185.7	1174.8	1187.7	1195.2
25°	1072.2	1085.2	1090.6	1090.6	1102.2	1100.1	1085.2	1091.9	1081.8	1094.0	1098.1
27.5°	931.7	948.0	952.0	960.2	979.9	984.0	977.9	991.5	987.4	1000.3	998.9
30°	754.5	770.8	776.9	793.2	825.1	844.1	854.3	880.8	887.6	902.5	895.0
32.5°	556.2	569.7	578.6	603.0	645.2	683.8	718.5	757.9	778.9	795.2	781.7
35°	370.8	380.9	390.5	421.0	465.2	513.4	563.7	620.0	656.0	673.6	655.3
37.5°	232.9	239.7	245.8	268.2	303.6	348.4	402.0	466.5	516.1	537.1	514.1
40°	146.0	150.1	153.4	167.1	188.8	216.0	261.5	315.8	366.7	386.4	364.6
42.5°	93.8	95.8	97.8	105.3	116.8	133.8	158.9	192.9	228.1	241.8	227.5
45°	61.8	62.4	63.2	67.2	73.3	81.5	94.4	110.0	127.0	132.4	126.3
47.5°	40.7	40.7	41.4	44.1	47.5	52.3	57.0	61.2	66.6	69.3	65.9
50°	25.8	26.5	27.2	29.2	31.2	33.2	34.6	34.6	36.0	36.0	35.3
52.5°	15.7	15.7	16.3	16.9	19.7	21.7	21.7	20.4	20.4	20.4	19.7
55°	11.5	11.5	11.5	12.2	12.9	12.9	12.9	12.9	12.9	12.9	12.2
57.5°	8.8	8.8	8.8	9.5	9.5	9.5	9.5	8.8	8.8	8.8	8.8
60°	6.1	6.1	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.1
62.5°	4.8	4.8	4.8	5.4	5.4	5.4	5.4	5.4	5.4	4.8	4.8
65°	3.4	3.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
67.5°	2.7	2.7	2.7	2.7	2.7	2.7	3.4	2.7	2.7	2.7	2.7
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
75°	0.6	0.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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



TEST NUMBER: P136757

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQ1LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9	1618.9
2.5°	1633.9	1635.9	1606.0	1612.1	1633.9	1612.1	1612.9	1630.4
5°	1640.0	1639.3	1608.7	1616.2	1629.2	1613.5	1614.1	1635.2
7.5°	1626.4	1620.3	1589.7	1598.6	1602.0	1591.1	1591.1	1614.1
10°	1584.3	1574.1	1545.6	1554.5	1548.3	1541.5	1539.5	1562.6
12.5°	1529.3	1517.7	1493.3	1501.4	1486.5	1486.5	1480.4	1501.4
15°	1460.7	1450.5	1433.5	1443.0	1420.6	1425.4	1415.9	1434.9
17.5°	1378.6	1371.7	1362.3	1373.8	1347.3	1355.4	1342.5	1358.8
20°	1284.2	1280.7	1279.4	1291.0	1263.8	1277.3	1262.4	1273.9
22.5°	1186.3	1186.3	1193.8	1209.5	1179.5	1194.5	1176.9	1183.7
25°	1089.9	1090.6	1099.4	1110.3	1081.1	1094.0	1074.3	1075.0
27.5°	987.4	981.2	990.8	988.8	952.0	959.5	938.5	934.4
30°	874.7	856.3	849.5	830.6	789.1	787.7	766.0	757.9
32.5°	751.1	716.4	695.4	656.7	603.7	591.5	571.8	562.3
35°	613.8	561.6	523.6	472.7	420.3	402.7	387.1	378.9
37.5°	463.2	403.4	359.9	311.0	273.6	259.4	246.6	241.1
40°	315.8	264.9	227.5	194.9	171.8	163.0	155.5	152.1
42.5°	194.9	162.3	140.5	120.8	107.9	103.2	99.8	97.8
45°	111.3	96.4	86.9	76.1	69.9	67.2	65.2	63.8
47.5°	61.8	57.7	54.3	49.5	45.5	43.5	42.8	42.1
50°	34.6	35.3	35.3	32.6	30.6	28.6	27.2	26.5
52.5°	20.4	21.7	22.4	20.4	17.7	16.3	16.3	15.7
55°	12.9	12.9	12.9	12.9	12.2	11.5	11.5	11.5
57.5°	8.8	8.8	9.5	9.5	9.5	8.8	8.8	8.1
60°	6.8	6.8	6.8	6.8	6.8	6.8	6.1	6.1
62.5°	5.4	5.4	5.4	5.4	5.4	4.8	4.8	4.8
65°	4.1	4.1	4.1	4.1	4.1	3.4	3.4	3.4
67.5°	2.7	3.4	2.7	2.7	2.7	2.7	2.7	2.7
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
75°	1.4	1.4	1.4	1.4	1.4	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)