

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: P136905

Luminaire Tested: **LDSQ6A20D010TE ESQ6A20930 6LSQ1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136905
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: LDSQ6A20D010TE ESQ6A20930 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: 2131.7 lumens
Efficiency: N/A
Efficacy: 65.0 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

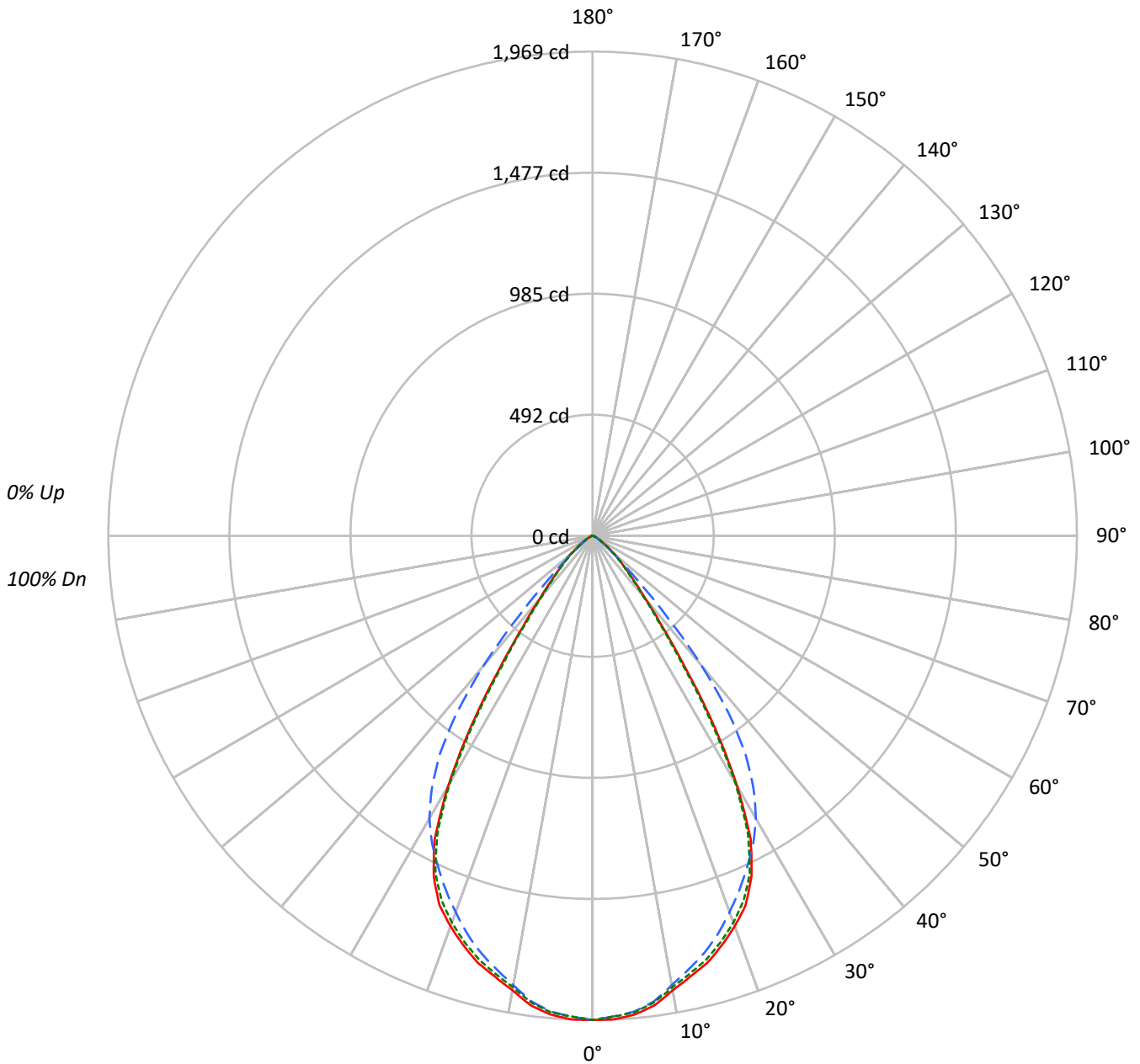
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136905

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Luminous Intensity Polar Plot





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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	84768	84768	84768
5°	84478	83968	84072
10°	82040	81109	81524
15°	80167	78268	79534
20°	77420	74598	76660
25°	72623	70600	71840
30°	58471	66003	57651
35°	34701	56845	33082
40°	18756	38703	17823
45°	11673	16282	11240
50°	7770	6343	7294
55°	4617	3378	4444
60°	2850	2239	2652
65°	1691	1447	1691
70°	1196	1196	894
75°	782	782	782
80°	595	595	595
85°	0	1186	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	8.6
10°-20°	497.4	23.3
20°-30°	680.3	31.9
30°-40°	515.2	24.2
40°-50°	178.9	8.4
50°-60°	53.6	2.5
60°-70°	17.0	0.8
70°-80°	5.3	0.2
80°-90°	1.3	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°	1360.6	63.8
0°-40°	1875.7	88.0
0°-60°	2108.2	98.9
0°-90°	2131.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2131.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1969	1969	1969	1969	1969	
5°	1955	1948	1943	1945	1945	184
15°	1798	1776	1756	1771	1784	505
25°	1529	1506	1486	1498	1512	685
35°	660	806	1082	795	629	429
45°	192	205	267	201	185	156
55°	62	59	45	58	59	58
65°	17	17	14	17	17	18
75°	5	5	5	5	5	5
85°	0	0	2	1	0	0
90°	0	0	0	0	0	



TEST NUMBER: P136905

CATALOG NUMBER: LDSQ6A20D010TE ESQ6A20930 6LSQ1H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	1968.8	1959.4	1949.9	1957.0	1966.5	1954.6	1957.0	1957.0	1949.9	1957.0	1952.3
5°	1954.6	1947.5	1938.1	1945.2	1952.3	1942.8	1942.8	1942.8	1938.1	1942.8	1940.4
7.5°	1926.2	1916.8	1907.3	1914.4	1921.5	1912.0	1909.7	1912.0	1904.9	1909.7	1907.3
10°	1876.5	1869.4	1860.0	1867.1	1871.8	1860.0	1857.6	1860.0	1850.5	1855.2	1855.2
12.5°	1836.3	1831.6	1819.8	1824.5	1826.9	1815.0	1810.3	1810.3	1800.9	1805.6	1803.2
15°	1798.5	1791.4	1779.6	1781.9	1784.3	1767.8	1763.0	1760.7	1751.2	1755.9	1753.6
17.5°	1746.5	1741.7	1727.5	1729.9	1727.5	1713.3	1703.9	1701.5	1692.0	1696.8	1692.0
20°	1689.7	1682.6	1668.4	1666.0	1661.3	1644.7	1637.6	1635.2	1623.4	1628.1	1625.8
22.5°	1625.8	1616.3	1602.1	1599.7	1595.0	1576.1	1569.0	1564.2	1554.8	1559.5	1554.8
25°	1528.7	1521.6	1509.8	1509.8	1512.2	1500.3	1498.0	1495.6	1483.8	1486.1	1483.8
27.5°	1391.5	1386.8	1382.0	1384.4	1396.2	1396.2	1408.1	1412.8	1408.1	1412.8	1408.1
30°	1176.1	1178.5	1192.7	1206.9	1235.3	1256.6	1285.0	1306.3	1315.8	1327.6	1318.1
32.5°	925.3	918.2	946.6	979.7	1024.7	1072.0	1128.8	1173.8	1204.5	1216.4	1202.2
35°	660.2	657.8	683.9	719.4	771.4	840.1	925.3	1003.4	1057.8	1081.5	1057.8
37.5°	461.5	463.9	478.1	501.7	542.0	601.1	691.0	788.0	870.8	906.3	866.1
40°	333.7	331.3	340.8	355.0	378.7	416.5	478.1	558.5	641.3	688.6	636.5
42.5°	250.9	248.5	253.2	260.3	272.2	291.1	324.2	366.8	418.9	452.0	411.8
45°	191.7	191.7	191.7	196.4	201.2	208.3	220.1	234.3	253.2	267.4	248.5
47.5°	149.1	149.1	149.1	151.5	153.8	153.8	153.8	151.5	153.8	156.2	151.5
50°	116.0	116.0	116.0	116.0	116.0	113.6	108.9	99.4	97.0	94.7	94.7
52.5°	82.8	82.8	82.8	85.2	87.6	82.8	75.7	68.6	63.9	63.9	63.9
55°	61.5	61.5	61.5	61.5	61.5	56.8	52.1	47.3	45.0	45.0	45.0
57.5°	45.0	45.0	45.0	45.0	42.6	40.2	37.9	35.5	33.1	33.1	33.1
60°	33.1	33.1	33.1	33.1	30.8	28.4	28.4	26.0	26.0	26.0	26.0
62.5°	23.7	23.7	23.7	23.7	23.7	21.3	21.3	18.9	18.9	18.9	18.9
65°	16.6	16.6	16.6	16.6	16.6	16.6	14.2	14.2	14.2	14.2	14.2
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	4.7	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
75°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
80°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
82.5°	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4
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: P136905

CATALOG NUMBER: LDSQ6A20D010TE ESQ6A20930 6LSQ1H

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	1952.3	1964.1	1964.1	1954.6	1947.5	1959.4	1961.7	1957.0
5°	1940.4	1949.9	1949.9	1940.4	1933.3	1947.5	1947.5	1945.2
7.5°	1907.3	1919.1	1916.8	1909.7	1902.6	1914.4	1919.1	1914.4
10°	1855.2	1867.1	1867.1	1860.0	1852.9	1867.1	1869.4	1864.7
12.5°	1805.6	1817.4	1822.1	1815.0	1812.7	1824.5	1829.2	1824.5
15°	1755.9	1770.1	1772.5	1770.1	1770.1	1784.3	1789.0	1784.3
17.5°	1696.8	1711.0	1715.7	1713.3	1715.7	1729.9	1737.0	1732.3
20°	1628.1	1640.0	1644.7	1644.7	1647.1	1666.0	1675.5	1673.1
22.5°	1554.8	1569.0	1576.1	1578.4	1580.8	1599.7	1609.2	1604.5
25°	1486.1	1498.0	1498.0	1498.0	1495.6	1509.8	1516.9	1512.2
27.5°	1403.3	1405.7	1398.6	1382.0	1370.2	1374.9	1379.7	1367.8
30°	1299.2	1285.0	1259.0	1223.5	1192.7	1180.9	1178.5	1159.6
32.5°	1166.7	1126.4	1072.0	1010.5	956.0	927.6	915.8	894.5
35°	996.3	920.5	835.3	754.9	693.3	662.6	650.7	629.4
37.5°	778.5	683.9	594.0	525.4	485.2	459.1	452.0	440.2
40°	542.0	466.2	407.1	364.5	338.4	326.6	324.2	317.1
42.5°	357.4	314.8	284.0	262.7	250.9	243.8	243.8	239.0
45°	229.6	215.4	205.9	196.4	189.3	187.0	187.0	184.6
47.5°	149.1	151.5	151.5	149.1	144.4	142.0	144.4	142.0
50°	99.4	106.5	111.2	113.6	111.2	108.9	111.2	108.9
52.5°	68.6	75.7	82.8	85.2	82.8	80.5	80.5	80.5
55°	47.3	52.1	56.8	59.2	59.2	59.2	59.2	59.2
57.5°	35.5	37.9	40.2	42.6	45.0	42.6	45.0	42.6
60°	26.0	28.4	30.8	30.8	33.1	33.1	33.1	30.8
62.5°	18.9	21.3	21.3	23.7	23.7	23.7	23.7	23.7
65°	14.2	14.2	16.6	16.6	16.6	16.6	16.6	16.6
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	7.1
72.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	4.7
75°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
80°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	2.4	0.0	2.4	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)