

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: P136845

Luminaire Tested: **LDSQ6A10D010TE ESQ6A10940 6LSQ1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136845
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: LDSQ6A10D010TE ESQ6A10940 6LSQ1H
Description: PORTFOLIO LED SQUARE 6 INCH 60 DEGREE CUTOFF RECESSED DOWNLIGHT
MEDIUM DISTRIBUTION WITH SEMI-SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1068.6 lumens
Efficiency: N/A
Efficacy: 76.3 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

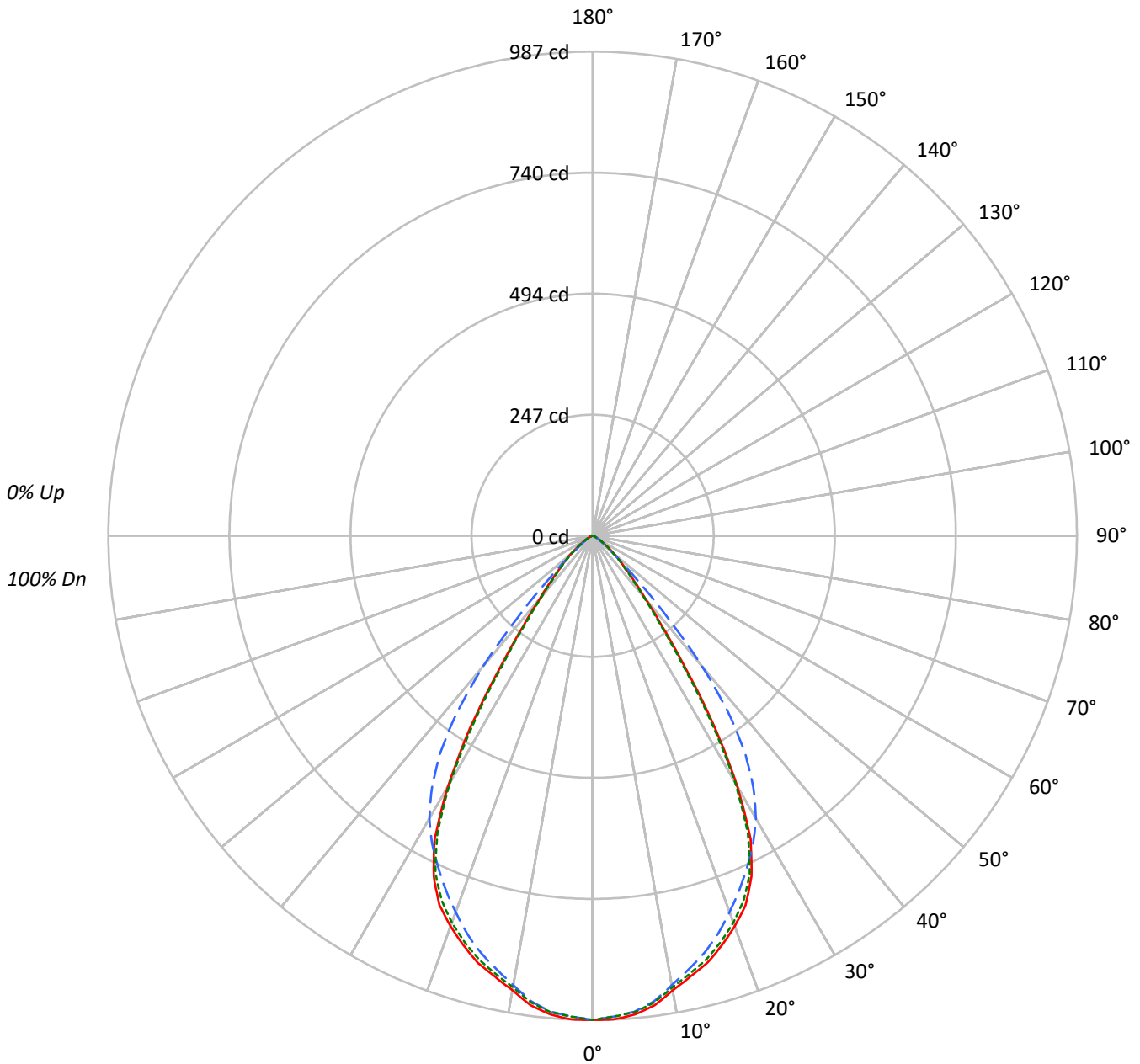
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
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	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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85					85			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79					79			
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72					72			
5	90	81	75	71	89	80	75	70	79	74	70	77	73	69	75	72	68	67					67			
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62					62			
7	81	71	65	60	79	70	64	60	69	64	60	68	63	59	67	62	59	57					57			
8	77	66	60	56	75	66	60	56	65	59	55	64	59	55	63	58	55	53					53			
9	73	62	56	52	71	62	56	52	61	55	52	60	55	51	59	55	51	50					50			
10	69	59	53	49	68	58	52	48	57	52	48	57	52	48	56	51	48	47					47			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42492	42492	42492
5°	42351	42092	42144
10°	41127	40659	40869
15°	40188	39234	39867
20°	38804	37393	38428
25°	36404	35392	36010
30°	29308	33086	28900
35°	17393	28493	16583
40°	9403	19402	8937
45°	5852	8159	5632
50°	3892	3182	3651
55°	2312	1696	2229
60°	1429	1119	1326
65°	846	734	846
70°	604	604	453
75°	399	399	399
80°	298	298	298
85°	0	593	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.7	8.6
10°-20°	249.3	23.3
20°-30°	341.0	31.9
30°-40°	258.2	24.2
40°-50°	89.6	8.4
50°-60°	26.8	2.5
60°-70°	8.5	0.8
70°-80°	2.7	0.2
80°-90°	0.7	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°	682.0	63.8
0°-40°	940.3	88.0
0°-60°	1056.8	98.9
0°-90°	1068.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1068.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	987	987	987	987	987	
5°	980	976	974	975	975	92
15°	902	890	880	888	894	253
25°	766	755	745	751	758	343
35°	331	404	542	399	316	215
45°	96	103	134	101	92	78
55°	31	30	23	29	30	29
65°	8	8	7	8	8	9
75°	2	2	2	2	2	2
85°	0	0	1	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°	986.9	986.9	986.9	986.9	986.9	986.9	986.9	986.9	986.9	986.9	986.9
2.5°	986.9	982.2	977.5	981.0	985.7	979.9	981.0	981.0	977.5	981.0	978.7
5°	979.9	976.3	971.5	975.1	978.7	973.9	973.9	973.9	971.5	973.9	972.7
7.5°	965.6	960.9	956.1	959.7	963.3	958.5	957.3	958.5	954.9	957.3	956.1
10°	940.7	937.1	932.4	935.9	938.3	932.4	931.2	932.4	927.6	930.0	930.0
12.5°	920.5	918.2	912.2	914.6	915.8	909.8	907.4	907.4	902.8	905.1	904.0
15°	901.6	898.0	892.0	893.2	894.4	886.1	883.8	882.6	877.8	880.2	879.0
17.5°	875.4	873.1	865.9	867.1	865.9	858.9	854.1	852.9	848.1	850.5	848.1
20°	846.9	843.5	836.3	835.1	832.7	824.5	820.9	819.7	813.7	816.1	814.9
22.5°	814.9	810.2	803.1	801.9	799.5	790.0	786.5	784.1	779.4	781.8	779.4
25°	766.3	762.8	756.8	756.8	758.0	752.1	750.9	749.7	743.8	745.0	743.8
27.5°	697.5	695.1	692.7	693.9	699.9	699.9	705.9	708.1	705.9	708.1	705.9
30°	589.5	590.7	597.9	605.0	619.2	629.9	644.2	654.8	659.6	665.5	660.8
32.5°	463.9	460.3	474.5	491.1	513.6	537.4	565.9	588.3	603.8	609.7	602.6
35°	330.9	329.7	342.8	360.6	386.8	421.1	463.9	503.0	530.2	542.1	530.2
37.5°	231.3	232.5	239.6	251.4	271.6	301.3	346.4	395.0	436.5	454.3	434.1
40°	167.3	166.1	170.8	177.9	189.8	208.8	239.6	280.0	321.5	345.2	319.1
42.5°	125.8	124.6	127.0	130.4	136.4	145.9	162.5	183.9	209.9	226.6	206.4
45°	96.1	96.1	96.1	98.5	100.8	104.4	110.3	117.4	127.0	134.0	124.6
47.5°	74.7	74.7	74.7	75.9	77.1	77.1	77.1	75.9	77.1	78.3	75.9
50°	58.1	58.1	58.1	58.1	58.1	56.9	54.5	49.8	48.7	47.5	47.5
52.5°	41.5	41.5	41.5	42.7	43.9	41.5	38.0	34.4	32.0	32.0	32.0
55°	30.8	30.8	30.8	30.8	30.8	28.5	26.1	23.7	22.6	22.6	22.6
57.5°	22.6	22.6	22.6	22.6	21.4	20.2	19.0	17.8	16.6	16.6	16.6
60°	16.6	16.6	16.6	16.6	15.4	14.2	14.2	13.0	13.0	13.0	13.0
62.5°	11.8	11.8	11.8	11.8	11.8	10.6	10.6	9.5	9.5	9.5	9.5
65°	8.3	8.3	8.3	8.3	8.3	8.3	7.2	7.2	7.2	7.2	7.2
67.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
72.5°	2.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
75°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2
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°	986.9	986.9	986.9	986.9	986.9	986.9	986.9	986.9
2.5°	978.7	984.6	984.6	979.9	976.3	982.2	983.4	981.0
5°	972.7	977.5	977.5	972.7	969.1	976.3	976.3	975.1
7.5°	956.1	962.1	960.9	957.3	953.7	959.7	962.1	959.7
10°	930.0	935.9	935.9	932.4	928.8	935.9	937.1	934.8
12.5°	905.1	911.0	913.4	909.8	908.6	914.6	917.0	914.6
15°	880.2	887.3	888.5	887.3	887.3	894.4	896.8	894.4
17.5°	850.5	857.7	860.0	858.9	860.0	867.1	870.7	868.3
20°	816.1	822.1	824.5	824.5	825.6	835.1	839.9	838.7
22.5°	779.4	786.5	790.0	791.2	792.4	801.9	806.6	804.3
25°	745.0	750.9	750.9	750.9	749.7	756.8	760.4	758.0
27.5°	703.5	704.7	701.1	692.7	686.8	689.2	691.6	685.7
30°	651.2	644.2	631.1	613.3	597.9	591.9	590.7	581.3
32.5°	584.9	564.7	537.4	506.6	479.2	465.0	459.1	448.4
35°	499.4	461.5	418.7	378.4	347.6	332.1	326.3	315.5
37.5°	390.2	342.8	297.7	263.4	243.2	230.1	226.6	220.6
40°	271.6	233.7	204.1	182.7	169.6	163.7	162.5	159.0
42.5°	179.1	157.8	142.4	131.6	125.8	122.2	122.2	119.8
45°	115.0	108.0	103.2	98.5	94.9	93.7	93.7	92.5
47.5°	74.7	75.9	75.9	74.7	72.3	71.1	72.3	71.1
50°	49.8	53.3	55.7	56.9	55.7	54.5	55.7	54.5
52.5°	34.4	38.0	41.5	42.7	41.5	40.3	40.3	40.3
55°	23.7	26.1	28.5	29.7	29.7	29.7	29.7	29.7
57.5°	17.8	19.0	20.2	21.4	22.6	21.4	22.6	21.4
60°	13.0	14.2	15.4	15.4	16.6	16.6	16.6	15.4
62.5°	9.5	10.6	10.6	11.8	11.8	11.8	11.8	11.8
65°	7.2	7.2	8.3	8.3	8.3	8.3	8.3	8.3
67.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.6
72.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	2.4
75°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	1.2	1.2	0.0	1.2	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)