

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: P136843

Luminaire Tested: **LDSQ6A10D010TE ESQ6A10927 6LSQ1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P136843  
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 ESQ6A10927 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 2700K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 974.9 lumens  
Efficiency: N/A  
Efficacy: 69.6 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

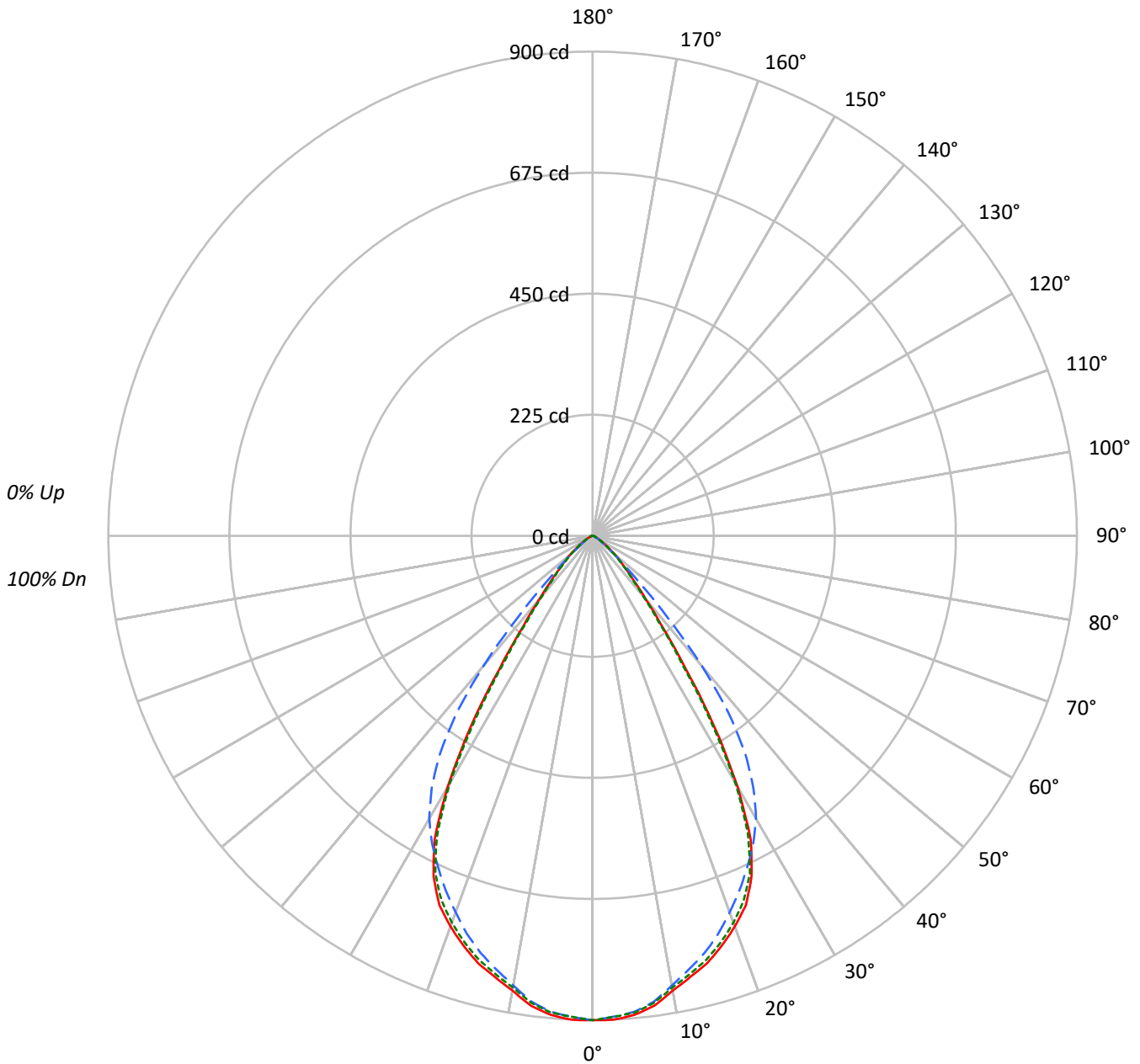
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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°	38772	38772	38772
5°	38634	38401	38449
10°	37520	37096	37284
15°	36663	35798	36373
20°	35409	34117	35061
25°	33212	32290	32856
30°	26742	30188	26365
35°	15868	25997	15132
40°	8577	17705	8150
45°	5340	7447	5145
50°	3557	2900	3336
55°	2117	1546	2034
60°	1300	1025	1206
65°	774	662	774
70°	541	541	403
75°	366	366	366
80°	273	273	273
85°	0	543	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.7	8.6
10°-20°	227.5	23.3
20°-30°	311.1	31.9
30°-40°	235.6	24.2
40°-50°	81.8	8.4
50°-60°	24.5	2.5
60°-70°	7.7	0.8
70°-80°	2.4	0.2
80°-90°	0.6	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°	622.3	63.8
0°-40°	857.9	88.0
0°-60°	964.2	98.9
0°-90°	974.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	974.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	894	891	888	890	890	84
15°	822	812	803	810	816	231
25°	699	689	680	685	692	313
35°	302	368	495	364	288	196
45°	88	94	122	92	84	71
55°	28	27	21	27	27	27
65°	8	8	6	8	8	8
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°	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5
2.5°	900.5	896.2	891.8	895.0	899.4	893.9	895.0	895.0	891.8	895.0	892.8
5°	893.9	890.7	886.4	889.6	892.8	888.5	888.5	888.5	886.4	888.5	887.5
7.5°	881.0	876.7	872.3	875.6	878.8	874.5	873.4	874.5	871.3	873.4	872.3
10°	858.2	855.0	850.7	853.9	856.1	850.7	849.6	850.7	846.4	848.5	848.5
12.5°	839.9	837.7	832.3	834.5	835.6	830.1	827.9	827.9	823.6	825.8	824.7
15°	822.5	819.3	813.9	815.0	816.0	808.5	806.3	805.3	800.9	803.1	802.0
17.5°	798.8	796.5	790.0	791.1	790.0	783.6	779.3	778.2	773.9	776.0	773.9
20°	772.8	769.5	763.0	761.9	759.7	752.2	748.9	747.9	742.5	744.6	743.6
22.5°	743.6	739.2	732.7	731.6	729.4	720.8	717.6	715.4	711.1	713.2	711.1
25°	699.1	695.9	690.5	690.5	691.6	686.2	685.1	684.0	678.6	679.7	678.6
27.5°	636.4	634.2	632.0	633.1	638.6	638.6	644.0	646.1	644.0	646.1	644.0
30°	537.9	539.0	545.5	552.0	564.9	574.7	587.7	597.4	601.7	607.2	602.9
32.5°	423.2	419.9	432.9	448.1	468.6	490.3	516.3	536.8	550.9	556.3	549.8
35°	301.9	300.9	312.8	329.0	352.8	384.2	423.2	458.9	483.8	494.6	483.8
37.5°	211.0	212.1	218.7	229.4	247.9	274.9	316.1	360.4	398.3	414.5	396.1
40°	152.6	151.6	155.9	162.3	173.1	190.5	218.7	255.4	293.3	315.0	291.1
42.5°	114.8	113.6	115.8	119.1	124.5	133.1	148.3	167.7	191.6	206.7	188.3
45°	87.7	87.7	87.7	89.9	92.0	95.2	100.6	107.1	115.8	122.3	113.6
47.5°	68.2	68.2	68.2	69.3	70.3	70.3	70.3	69.3	70.3	71.4	69.3
50°	53.1	53.1	53.1	53.1	53.1	52.0	49.8	45.4	44.3	43.3	43.3
52.5°	37.9	37.9	37.9	38.9	40.0	37.9	34.6	31.4	29.2	29.2	29.2
55°	28.2	28.2	28.2	28.2	28.2	26.0	23.8	21.7	20.6	20.6	20.6
57.5°	20.6	20.6	20.6	20.6	19.5	18.4	17.4	16.2	15.1	15.1	15.1
60°	15.1	15.1	15.1	15.1	14.0	12.9	12.9	11.9	11.9	11.9	11.9
62.5°	10.8	10.8	10.8	10.8	10.8	9.7	9.7	8.6	8.6	8.6	8.6
65°	7.6	7.6	7.6	7.6	7.6	7.6	6.5	6.5	6.5	6.5	6.5
67.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
70°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
72.5°	2.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
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°	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5
2.5°	892.8	898.3	898.3	893.9	890.7	896.2	897.3	895.0
5°	887.5	891.8	891.8	887.5	884.2	890.7	890.7	889.6
7.5°	872.3	877.7	876.7	873.4	870.2	875.6	877.7	875.6
10°	848.5	853.9	853.9	850.7	847.4	853.9	855.0	852.8
12.5°	825.8	831.2	833.4	830.1	829.0	834.5	836.6	834.5
15°	803.1	809.6	810.6	809.6	809.6	816.0	818.2	816.0
17.5°	776.0	782.5	784.7	783.6	784.7	791.1	794.4	792.2
20°	744.6	750.0	752.2	752.2	753.3	761.9	766.3	765.2
22.5°	711.1	717.6	720.8	721.9	722.9	731.6	736.0	733.8
25°	679.7	685.1	685.1	685.1	684.0	690.5	693.7	691.6
27.5°	641.8	642.9	639.7	632.0	626.6	628.8	630.9	625.5
30°	594.2	587.7	575.8	559.5	545.5	540.1	539.0	530.3
32.5°	533.5	515.2	490.3	462.1	437.2	424.3	418.9	409.1
35°	455.6	421.0	382.1	345.3	317.1	303.0	297.6	287.9
37.5°	356.1	312.8	271.6	240.2	221.9	209.9	206.7	201.3
40°	247.9	213.3	186.2	166.7	154.8	149.4	148.3	145.0
42.5°	163.4	143.9	129.9	120.2	114.8	111.4	111.4	109.3
45°	105.0	98.5	94.2	89.9	86.6	85.5	85.5	84.5
47.5°	68.2	69.3	69.3	68.2	66.0	64.9	66.0	64.9
50°	45.4	48.7	50.9	52.0	50.9	49.8	50.9	49.8
52.5°	31.4	34.6	37.9	38.9	37.9	36.8	36.8	36.8
55°	21.7	23.8	26.0	27.1	27.1	27.1	27.1	27.1
57.5°	16.2	17.4	18.4	19.5	20.6	19.5	20.6	19.5
60°	11.9	12.9	14.0	14.0	15.1	15.1	15.1	14.0
62.5°	8.6	9.7	9.7	10.8	10.8	10.8	10.8	10.8
65°	6.5	6.5	7.6	7.6	7.6	7.6	7.6	7.6
67.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
70°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.2
72.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.2
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	0.0	1.1	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)