

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: P209539

Luminaire Tested: **LDSQA6A20930D2WD010TED2W LARL15SP 6LA1H DIF-20**

Test Date: 11/02/16

**Test Information**

Test Method: LM-41-14  
Report Number: P209539  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29042)  
Test Lab: INNOVATION CENTER-P2  
Test Date: 11/02/16  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA6A20930D2WD010TED2W LARL15SP 6LA1H DIF-20  
Description: 6" SQUARE, 2000lm D2W, FLOOD OPTIC WITH DIFFUSED LENS, ACCENT SELF  
FLANGED, HAZE TRIM  
Light Source: (1) High Lumen 3000K 90 CRI LED  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 956.0 lumens  
Efficiency: N/A  
Efficacy: 29.1 lumens/watt  
Spacing Criteria (0/90/45): 0.53 / 0.54 / 0.58  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

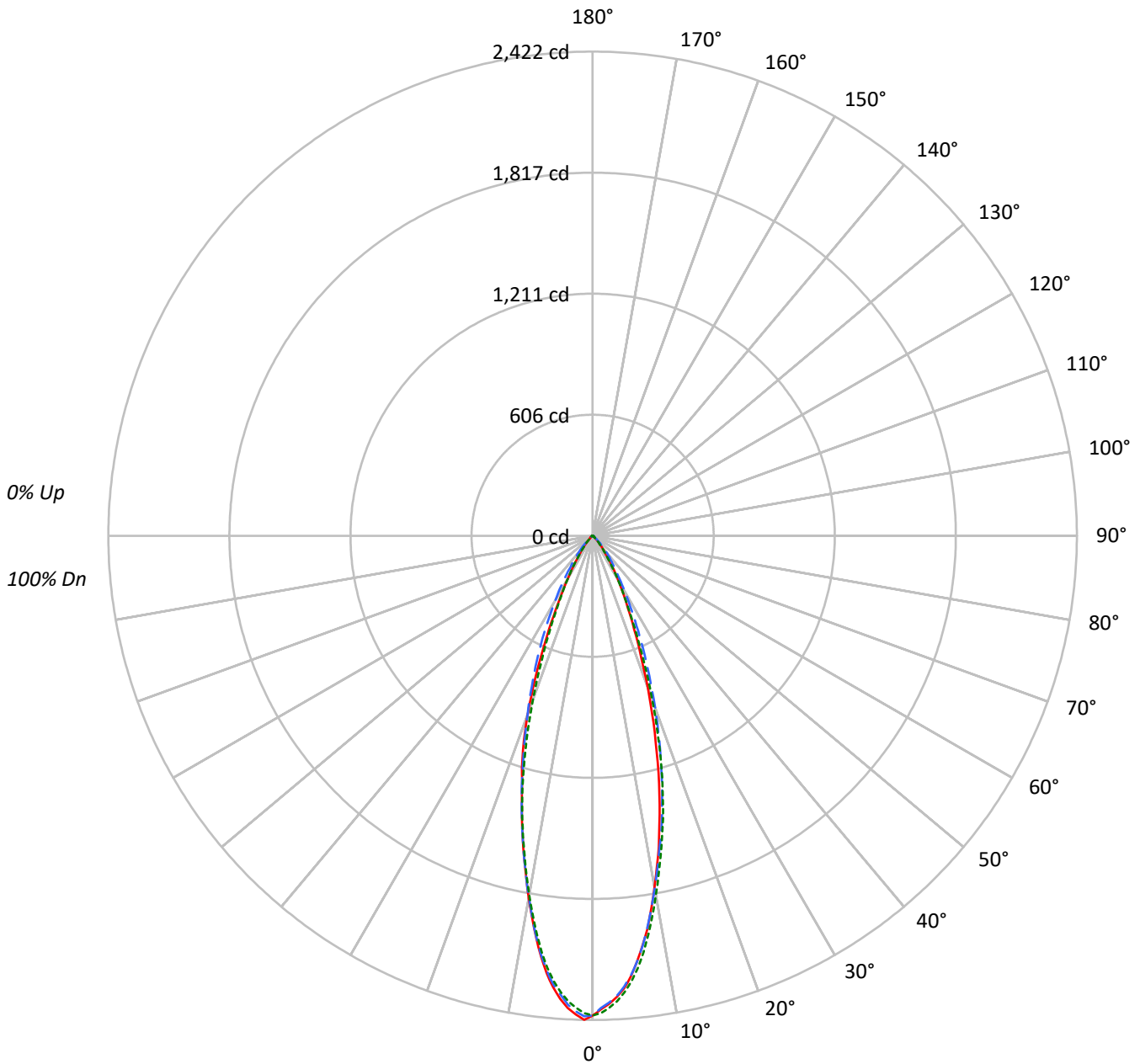
Input Watts (W): 32.8  
Input Voltage (V): 120.0  
Input Current (A<sub>in</sub>): 0.278  
Voltage Rise (V): NR  
Power Factor: 0.9944  
Total Harmonic Distortion (THDi): 12.3%  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 24 HR  
Ambient Temperature (°C): 24.4  
Test Distance: 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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95																			
2	110	105	102	99	107	104	101	98	101	98	96	98	96	94	95	93	92	90																			
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86																			
4	101	94	90	86	99	93	89	86	91	88	85	89	86	84	88	85	83	81																			
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77																			
6	93	86	80	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74																			
7	89	82	77	73	88	81	76	73	80	76	72	79	75	72	78	74	72	71																			
8	86	78	73	70	85	78	73	69	77	72	69	76	72	69	75	71	69	67																			
9	83	75	70	66	82	74	70	66	74	69	66	73	69	66	72	68	66	65																			
10	80	72	67	64	79	71	67	64	71	66	63	70	66	63	69	66	63	62																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	103334	103334	103334
5°	95560	96640	98023
10°	78040	79745	80401
15°	57234	60577	60978
20°	36930	39908	43390
25°	21568	22566	24371
30°	12827	12429	12379
35°	6360	6150	6255
40°	3260	3147	3204
45°	1157	1279	1340
50°	603	670	871
55°	300	601	751
60°	86	517	603
65°	102	102	102
70°	126	126	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.3	20.9
10°-20°	368.8	38.6
20°-30°	247.7	25.9
30°-40°	101.0	10.6
40°-50°	29.1	3.0
50°-60°	7.0	0.7
60°-70°	2.9	0.3
70°-80°	0.2	0.0
80°-90°	0.0	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°	815.9	85.3
0°-40°	916.9	95.9
0°-60°	952.9	99.7
0°-90°	956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2400	2400	2400	2400	2400	
5°	2211	2206	2236	2254	2268	197
15°	1284	1344	1359	1371	1368	349
25°	454	558	475	627	513	214
35°	121	179	117	201	119	84
45°	19	52	21	51	22	19
55°	4	3	8	5	10	4
65°	1	2	1	5	1	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2400	2400	2400	2400	2400	2400	2400	2400	2400
1°	2370	2345	2363	2384	2388	2390	2404	2416	2422
2°	2344	2319	2337	2359	2363	2364	2382	2391	2396
3°	2311	2288	2305	2327	2332	2330	2350	2359	2366
4°	2268	2244	2261	2285	2289	2287	2301	2317	2322
5°	2211	2190	2206	2232	2236	2232	2254	2264	2268
6°	2139	2125	2140	2167	2172	2165	2189	2197	2201
7°	2059	2049	2062	2090	2096	2089	2112	2118	2121
8°	1980	1962	1975	2004	2010	2001	2025	2029	2031
9°	1880	1872	1882	1911	1918	1909	1932	1935	1936
10°	1785	1779	1790	1818	1824	1815	1838	1839	1839
11°	1684	1684	1696	1723	1730	1719	1742	1743	1743
12°	1593	1587	1604	1630	1636	1625	1647	1648	1647
13°	1483	1491	1524	1538	1545	1533	1554	1556	1553
14°	1385	1395	1434	1448	1455	1442	1462	1464	1460
15°	1284	1298	1344	1354	1359	1352	1371	1372	1368
16°	1179	1201	1254	1260	1263	1263	1281	1283	1277
17°	1075	1106	1166	1165	1164	1172	1193	1205	1211
18°	988	1025	1079	1071	1064	1081	1109	1119	1125
19°	887	935	994	978	966	994	1028	1037	1041
20°	806	850	911	887	871	907	952	959	947
21°	713	760	831	800	779	824	880	880	853
22°	640	687	756	718	693	745	812	798	759
23°	574	618	686	642	614	670	747	719	671
24°	510	556	620	571	541	599	686	643	589
25°	454	498	558	506	475	532	627	571	513
26°	402	452	501	448	417	471	572	504	445
27°	364	403	448	396	366	416	518	442	384
28°	323	361	401	351	322	368	467	387	332
29°	285	318	357	311	284	324	419	338	287
30°	258	285	317	276	250	286	374	295	249
32.5°	185	221	238	205	173	211	279	211	175
35°	121	153	179	143	117	148	201	153	119
37.5°	85	103	140	100	81	104	146	107	83
40°	58	73	109	71	56	74	107	76	57
42.5°	37	51	77	49	35	51	77	53	36
45°	19	32	52	30	21	32	51	33	22
47.5°	13	17	33	18	13	18	33	19	15
50°	9	10	19	10	10	11	19	13	13
52.5°	9	8	8	8	9	8	8	11	11
55°	4	7	3	7	8	7	5	9	10
57.5°	2	3	7	6	7	6	9	8	9
60°	1	2	7	6	6	6	9	8	7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1	1	2	1	1	1	3	1	1
70°	1	1	1	1	1	1	1	1	0
72.5°	1	1	1	1	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°    - - 45°-225°    - - - - 90°-270°







62.5°	1	2	5	5	4	5	7	6	5
65°	1	1	2	3	1	3	5	4	1



(END OF REPORT)