

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P484995

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1LO-30-120-EDD**

Issue Date: 3/1/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P484995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-89BC-LD4-1LO-30-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

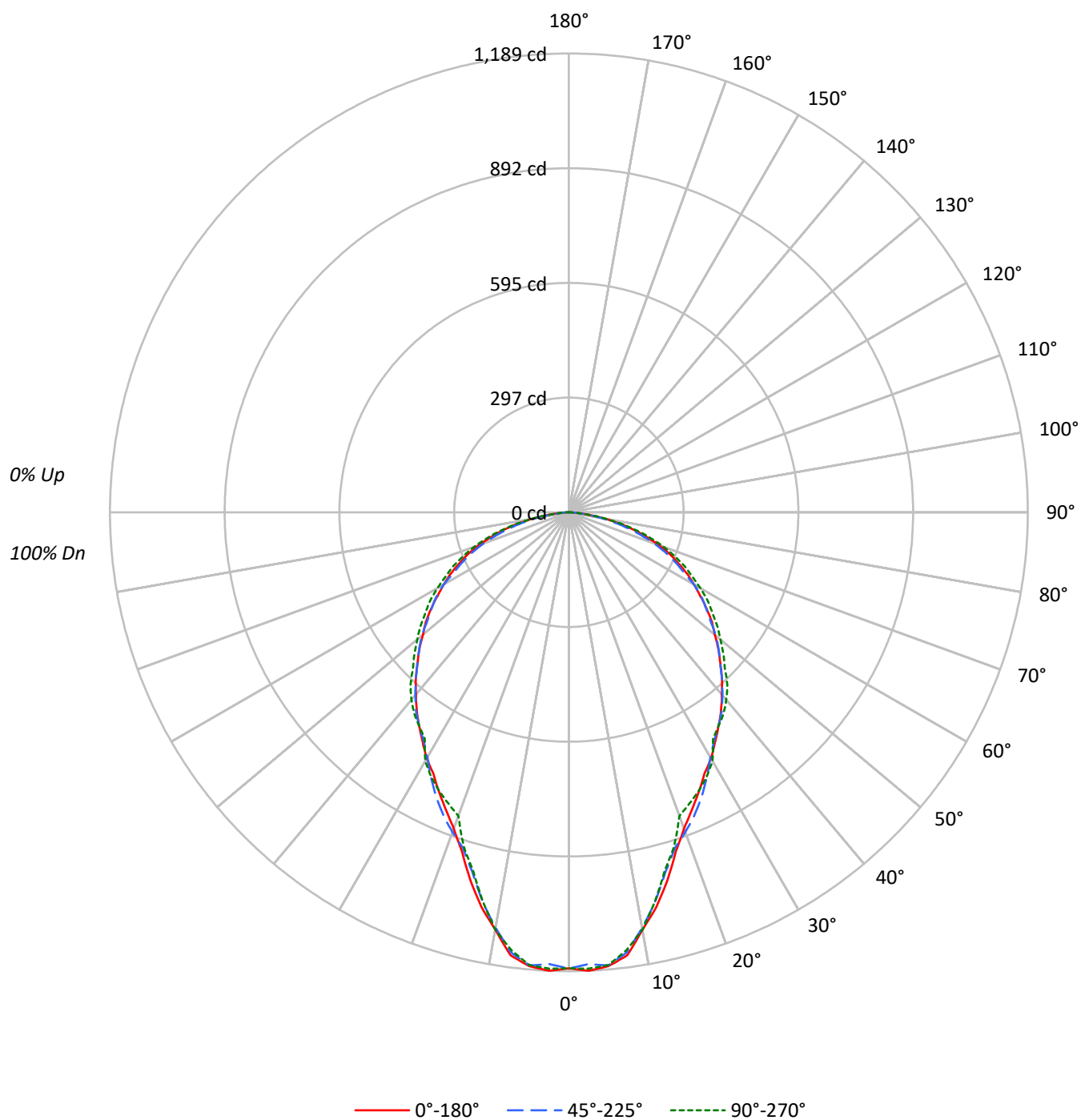
Lumens per Lamp: N/A
Luminaire Lumens: 2527.0 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): 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	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3180	3180	3180
5°	3189	3183	3180
10°	3000	2987	2999
15°	2749	2689	2674
20°	2497	2525	2397
25°	2368	2415	2364
30°	2287	2278	2312
35°	2220	2220	2220
40°	2165	2174	2227
45°	2112	2109	2175
50°	2066	2081	2146
55°	2044	2035	2128
60°	2017	2014	2117
65°	1992	1929	2105
70°	1953	1842	2050
75°	1808	1635	1897
80°	1466	1333	1505
85°	929	834	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	4.3
10°-20°	274.4	10.9
20°-30°	370.5	14.7
30°-40°	424.3	16.8
40°-50°	434.6	17.2
50°-60°	394.4	15.6
60°-70°	307.8	12.2
70°-80°	174.6	6.9
80°-90°	36.6	1.5
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°	754.6	29.9
0°-40°	1179.0	46.7
0°-60°	2008.0	79.5
0°-90°	2527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2527.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1180	1167	1178	1181	1177	110
15°	987	990	965	970	960	276
25°	798	808	814	794	796	368
35°	676	677	676	676	676	423
45°	555	559	554	577	571	429
55°	436	435	434	449	454	389
65°	313	306	303	317	331	310
75°	174	161	157	166	182	182
85°	30	27	27	25	26	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1181.6	1181.6	1181.6	1181.6	1181.6
2.5°	1189.0	1179.8	1171.8	1184.7	1183.4
5°	1180.4	1166.9	1178.5	1181.0	1177.3
7.5°	1157.6	1149.0	1149.7	1144.7	1144.1
10°	1098.0	1103.0	1093.1	1101.7	1097.4
12.5°	1047.0	1050.1	1032.9	1036.6	1031.7
15°	986.8	989.9	965.3	970.2	959.8
17.5°	921.1	932.1	911.9	918.0	906.9
20°	871.9	881.1	881.7	871.9	836.9
22.5°	833.2	842.4	849.8	820.3	816.6
25°	797.6	808.0	813.5	793.9	796.3
27.5°	761.9	773.6	773.6	777.9	772.4
30°	736.1	741.0	733.0	749.0	744.1
32.5°	705.4	707.2	700.5	712.2	695.0
35°	675.9	677.1	675.9	676.5	675.9
37.5°	647.6	644.6	650.1	646.4	658.1
40°	616.3	616.3	618.8	624.9	634.1
42.5°	587.4	589.9	586.8	604.0	607.7
45°	554.9	559.2	554.2	577.0	571.4
47.5°	525.4	527.2	526.0	541.3	542.6
50°	493.4	495.9	497.1	510.6	512.5
52.5°	467.0	466.4	462.1	481.7	484.8
55°	435.7	435.0	433.8	449.2	453.5
57.5°	403.7	404.3	407.4	416.0	426.4
60°	374.8	371.7	374.2	384.7	393.3
62.5°	345.3	339.8	334.3	351.5	359.5
65°	312.8	306.0	302.9	317.1	330.6
67.5°	282.7	271.6	269.7	279.6	295.6
70°	248.2	234.7	234.1	241.5	260.5
72.5°	210.1	198.5	195.4	205.2	222.4
75°	173.9	161.0	157.3	166.5	182.5
77.5°	134.6	124.1	121.7	126.6	139.5
80°	94.6	88.5	86.0	87.9	97.1
82.5°	59.6	55.3	54.1	53.5	58.4
85°	30.1	27.0	27.0	25.2	26.4
87.5°	9.2	8.6	8.0	6.1	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)