

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: P485001

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1LO-50-120-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: P485001
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-50-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

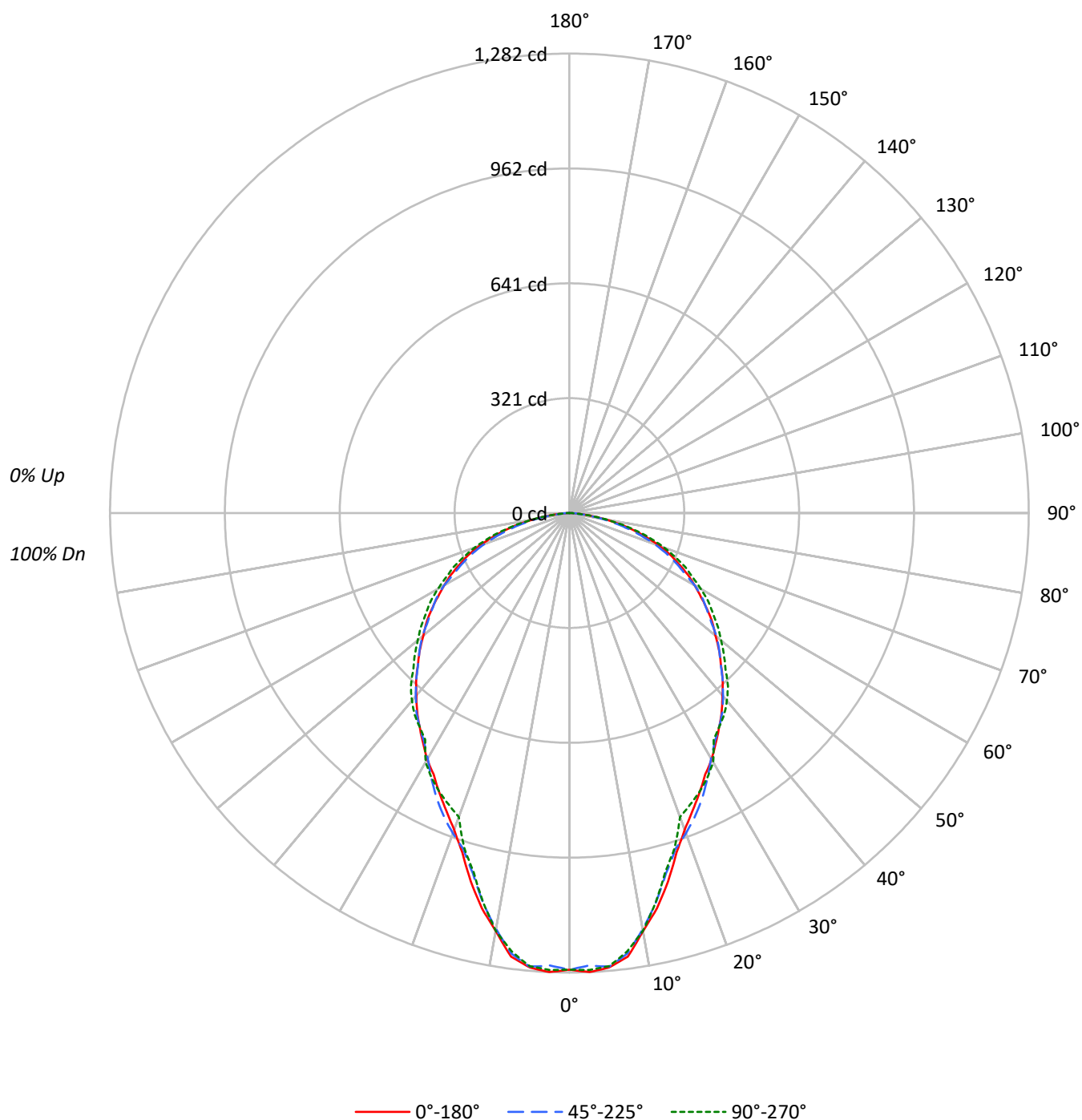
Lumens per Lamp: N/A
Luminaire Lumens: 2724.3 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3428	3428	3428
5°	3437	3432	3428
10°	3235	3220	3233
15°	2964	2899	2883
20°	2692	2722	2584
25°	2553	2604	2549
30°	2466	2456	2493
35°	2394	2394	2394
40°	2334	2343	2401
45°	2277	2274	2345
50°	2227	2244	2313
55°	2204	2194	2294
60°	2175	2171	2282
65°	2147	2080	2269
70°	2105	1986	2210
75°	1949	1763	2045
80°	1581	1437	1623
85°	1003	898	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	4.3
10°-20°	295.8	10.9
20°-30°	399.5	14.7
30°-40°	457.5	16.8
40°-50°	468.6	17.2
50°-60°	425.2	15.6
60°-70°	331.8	12.2
70°-80°	188.2	6.9
80°-90°	39.5	1.4
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°	813.6	29.9
0°-40°	1271.0	46.7
0°-60°	2164.8	79.5
0°-90°	2724.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2724.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1272	1258	1270	1273	1269	119
15°	1064	1067	1041	1046	1035	297
25°	860	871	877	856	858	397
35°	729	730	729	729	729	456
45°	598	603	598	622	616	462
55°	470	469	468	484	489	420
65°	337	330	327	342	356	334
75°	188	174	170	180	197	196
85°	32	29	29	27	28	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1273.9	1273.9	1273.9	1273.9	1273.9
2.5°	1281.8	1271.9	1263.3	1277.2	1275.8
5°	1272.5	1258.0	1270.5	1273.2	1269.2
7.5°	1248.0	1238.8	1239.4	1234.1	1233.5
10°	1183.8	1189.1	1178.5	1187.7	1183.1
12.5°	1128.8	1132.1	1113.6	1117.5	1112.2
15°	1063.9	1067.2	1040.7	1046.0	1034.7
17.5°	993.0	1004.9	983.1	989.7	977.8
20°	940.0	949.9	950.6	940.0	902.2
22.5°	898.3	908.2	916.1	884.3	880.4
25°	859.8	871.1	877.1	855.9	858.5
27.5°	821.4	834.0	834.0	838.6	832.7
30°	793.6	798.9	790.3	807.5	802.2
32.5°	760.5	762.5	755.2	767.8	749.2
35°	728.7	730.0	728.7	729.3	728.7
37.5°	698.2	694.9	700.9	696.9	709.5
40°	664.4	664.4	667.1	673.7	683.6
42.5°	633.3	635.9	632.6	651.2	655.1
45°	598.2	602.8	597.5	622.0	616.1
47.5°	566.4	568.4	567.0	583.6	584.9
50°	531.9	534.6	535.9	550.5	552.5
52.5°	503.4	502.8	498.2	519.3	522.7
55°	469.7	469.0	467.7	484.2	488.9
57.5°	435.2	435.9	439.2	448.5	459.7
60°	404.1	400.8	403.4	414.7	424.0
62.5°	372.3	366.3	360.4	378.9	387.5
65°	337.2	329.9	326.6	341.8	356.4
67.5°	304.7	292.8	290.8	301.4	318.6
70°	267.6	253.0	252.4	260.3	280.9
72.5°	226.6	214.0	210.7	221.3	239.8
75°	187.5	173.6	169.6	179.5	196.7
77.5°	145.1	133.8	131.2	136.5	150.4
80°	102.0	95.4	92.7	94.7	104.7
82.5°	64.3	59.6	58.3	57.6	62.9
85°	32.5	29.1	29.1	27.2	28.5
87.5°	9.9	9.3	8.6	6.6	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)