

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: P485053

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3HI-27-120-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: P485053
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-LD4-3HI-27-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

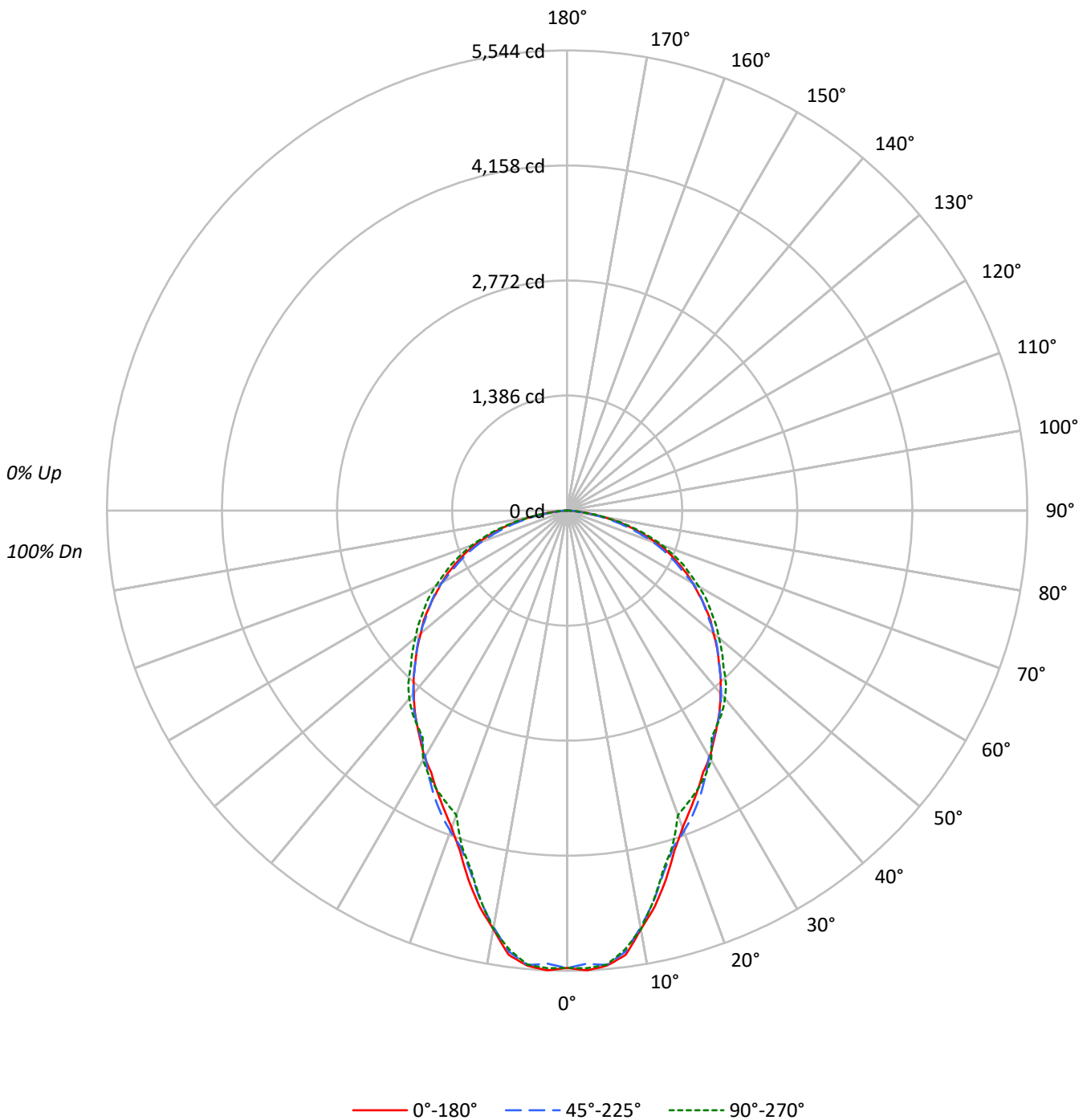
Lumens per Lamp: N/A
Luminaire Lumens: 11782.6 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	14826	14826	14826
5°	14867	14844	14828
10°	13990	13927	13982
15°	12819	12539	12467
20°	11642	11773	11175
25°	11042	11263	11025
30°	10665	10621	10781
35°	10353	10353	10353
40°	10094	10135	10386
45°	9846	9835	10140
50°	9631	9703	10003
55°	9530	9490	9920
60°	9406	9390	9868
65°	9286	8994	9815
70°	9107	8589	9558
75°	8430	7625	8847
80°	6837	6216	7015
85°	4335	3893	3804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	511.7	4.3
10°-20°	1279.3	10.9
20°-30°	1727.7	14.7
30°-40°	1978.4	16.8
40°-50°	2026.6	17.2
50°-60°	1838.8	15.6
60°-70°	1435.2	12.2
70°-80°	814.0	6.9
80°-90°	170.9	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
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0°-30°	3518.7	29.9
0°-40°	5497.2	46.7
0°-60°	9362.6	79.5
0°-90°	11782.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11782.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5509	5509	5509	5509	5509	
5°	5504	5441	5495	5507	5489	514
15°	4601	4616	4501	4524	4475	1286
25°	3719	3768	3793	3702	3713	1716
35°	3152	3157	3152	3154	3152	1974
45°	2587	2607	2584	2690	2664	2000
55°	2031	2028	2023	2094	2114	1815
65°	1458	1427	1412	1478	1541	1445
75°	811	751	733	776	851	848
85°	140	126	126	118	123	185
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5509.4	5509.4	5509.4	5509.4	5509.4
2.5°	5543.8	5500.9	5463.6	5523.8	5518.0
5°	5503.7	5440.7	5495.1	5506.6	5489.4
7.5°	5397.7	5357.6	5360.5	5337.5	5334.7
10°	5119.8	5142.7	5096.9	5137.0	5116.9
12.5°	4882.0	4896.3	4816.1	4833.3	4810.4
15°	4601.2	4615.6	4501.0	4523.9	4475.2
17.5°	4294.7	4346.2	4251.7	4280.4	4228.8
20°	4065.5	4108.4	4111.3	4065.5	3902.2
22.5°	3885.0	3928.0	3962.3	3824.8	3807.6
25°	3718.8	3767.5	3793.3	3701.6	3713.1
27.5°	3552.6	3607.1	3607.1	3627.1	3601.3
30°	3432.3	3455.2	3418.0	3492.5	3469.5
32.5°	3289.1	3297.6	3266.1	3320.6	3240.3
35°	3151.5	3157.3	3151.5	3154.4	3151.5
37.5°	3019.7	3005.4	3031.2	3014.0	3068.4
40°	2873.6	2873.6	2885.1	2913.7	2956.7
42.5°	2739.0	2750.4	2736.1	2816.3	2833.5
45°	2587.1	2607.2	2584.3	2690.3	2664.5
47.5°	2449.6	2458.2	2452.5	2524.1	2529.8
50°	2300.6	2312.1	2317.8	2380.8	2389.4
52.5°	2177.4	2174.6	2154.5	2246.2	2260.5
55°	2031.3	2028.4	2022.7	2094.3	2114.4
57.5°	1882.3	1885.2	1899.5	1939.6	1988.3
60°	1747.7	1733.3	1744.8	1793.5	1833.6
62.5°	1610.1	1584.4	1558.6	1638.8	1676.0
65°	1458.3	1426.8	1412.5	1478.4	1541.4
67.5°	1317.9	1266.3	1257.7	1303.6	1378.1
70°	1157.5	1094.4	1091.6	1126.0	1214.8
72.5°	979.8	925.4	911.1	956.9	1037.1
75°	810.8	750.6	733.4	776.4	850.9
77.5°	627.4	578.7	567.3	590.2	650.4
80°	441.2	412.6	401.1	409.7	452.7
82.5°	277.9	257.9	252.1	249.3	272.2
85°	140.4	126.1	126.1	117.5	123.2
87.5°	43.0	40.1	37.2	28.7	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)