

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: P485059

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3HI-40-120-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: P485059
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-40-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

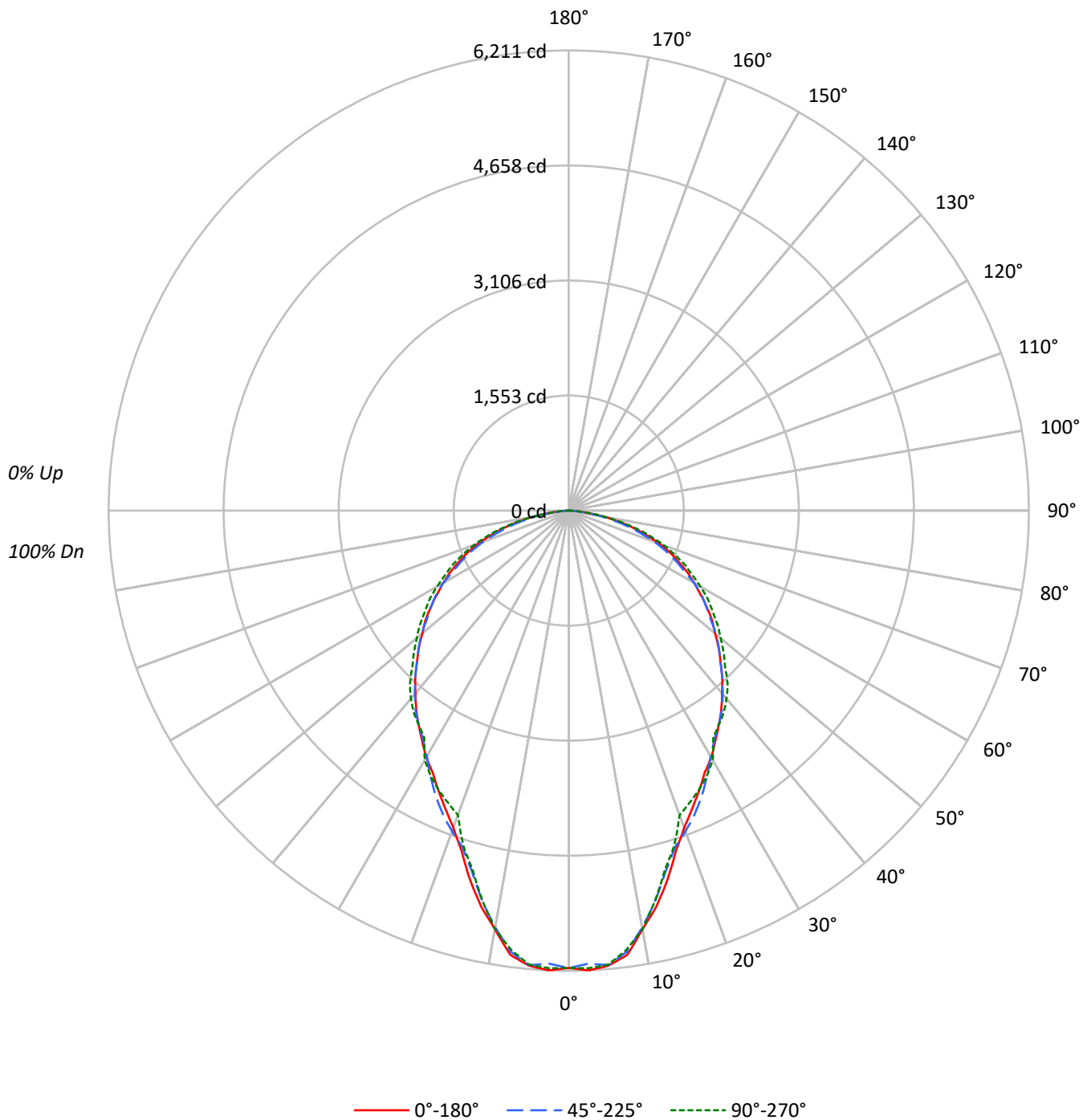
Lumens per Lamp: N/A
Luminaire Lumens: 13200.6 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16610	16610	16610
5°	16656	16630	16613
10°	15674	15603	15665
15°	14361	14048	13968
20°	13043	13190	12519
25°	12371	12618	12351
30°	11949	11899	12078
35°	11599	11599	11599
40°	11310	11354	11636
45°	11031	11018	11360
50°	10790	10871	11207
55°	10677	10632	11114
60°	10538	10521	11056
65°	10403	10076	10996
70°	10203	9622	10708
75°	9445	8543	9912
80°	7660	6964	7860
85°	4857	4360	4261



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	573.3	4.3
10°-20°	1433.3	10.9
20°-30°	1935.6	14.7
30°-40°	2216.6	16.8
40°-50°	2270.5	17.2
50°-60°	2060.2	15.6
60°-70°	1607.9	12.2
70°-80°	912.0	6.9
80°-90°	191.4	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°	3942.2	29.9
0°-40°	6158.7	46.7
0°-60°	10489.3	79.5
0°-90°	13200.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13200.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6172	6172	6172	6172	6172	
5°	6166	6096	6156	6169	6150	576
15°	5155	5171	5043	5068	5014	1441
25°	4166	4221	4250	4147	4160	1923
35°	3531	3537	3531	3534	3531	2212
45°	2898	2921	2895	3014	2985	2241
55°	2276	2273	2266	2346	2369	2034
65°	1634	1598	1582	1656	1727	1619
75°	908	841	822	870	953	950
85°	157	141	141	132	138	208
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6172.5	6172.5	6172.5	6172.5	6172.5
2.5°	6211.0	6162.9	6121.1	6188.5	6182.1
5°	6166.1	6095.5	6156.4	6169.3	6150.0
7.5°	6047.3	6002.4	6005.6	5979.9	5976.7
10°	5736.0	5761.6	5710.3	5755.2	5732.7
12.5°	5469.5	5485.6	5395.7	5415.0	5389.3
15°	5155.0	5171.0	5042.6	5068.3	5013.7
17.5°	4811.5	4869.3	4763.4	4795.5	4737.7
20°	4554.7	4602.9	4606.1	4554.7	4371.8
22.5°	4352.5	4400.7	4439.2	4285.1	4265.9
25°	4166.4	4220.9	4249.8	4147.1	4159.9
27.5°	3980.2	4041.2	4041.2	4063.6	4034.7
30°	3845.4	3871.0	3829.3	3912.8	3887.1
32.5°	3684.9	3694.5	3659.2	3720.2	3630.3
35°	3530.8	3537.2	3530.8	3534.0	3530.8
37.5°	3383.2	3367.1	3396.0	3376.7	3437.7
40°	3219.5	3219.5	3232.3	3264.4	3312.5
42.5°	3068.6	3081.4	3065.4	3155.3	3174.5
45°	2898.5	2920.9	2895.3	3014.0	2985.1
47.5°	2744.4	2754.0	2747.6	2827.9	2834.3
50°	2577.5	2590.3	2596.7	2667.4	2677.0
52.5°	2439.5	2436.3	2413.8	2516.5	2532.6
55°	2275.8	2272.6	2266.1	2346.4	2368.9
57.5°	2108.9	2112.1	2128.1	2173.1	2227.6
60°	1958.0	1941.9	1954.8	2009.3	2054.3
62.5°	1803.9	1775.0	1746.1	1836.0	1877.7
65°	1633.8	1598.5	1582.4	1656.3	1726.9
67.5°	1476.5	1418.7	1409.1	1460.5	1543.9
70°	1296.8	1226.2	1222.9	1261.5	1361.0
72.5°	1097.8	1036.8	1020.7	1072.1	1162.0
75°	908.4	841.0	821.7	869.9	953.3
77.5°	703.0	648.4	635.5	661.2	728.6
80°	494.3	462.2	449.4	459.0	507.2
82.5°	311.4	288.9	282.5	279.3	304.9
85°	157.3	141.2	141.2	131.6	138.0
87.5°	48.1	44.9	41.7	32.1	35.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)