

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: P487116

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-27-120-EDD-90**

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: P487116
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-24-4-INS-89BC-LD4-6LO-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

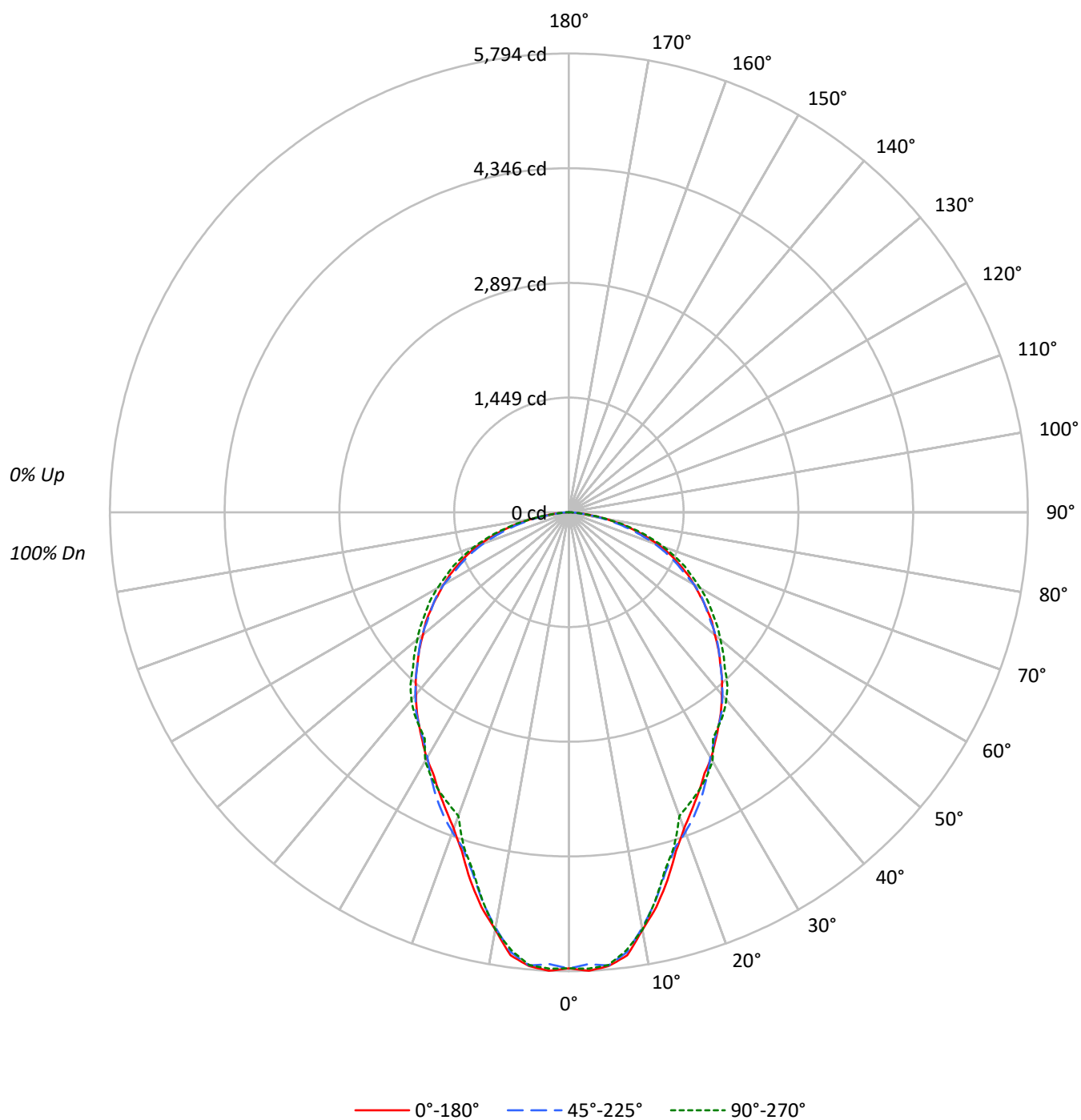
Lumens per Lamp: N/A
Luminaire Lumens: 12314.3 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7747	7747	7747
5°	7769	7757	7749
10°	7311	7278	7306
15°	6699	6553	6515
20°	6084	6152	5839
25°	5770	5886	5761
30°	5573	5550	5634
35°	5410	5410	5410
40°	5275	5296	5427
45°	5145	5139	5299
50°	5033	5071	5227
55°	4980	4959	5184
60°	4915	4907	5157
65°	4852	4700	5129
70°	4759	4488	4995
75°	4405	3985	4623
80°	3573	3248	3666
85°	2265	2033	1988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	534.8	4.3
10°-20°	1337.0	10.9
20°-30°	1805.6	14.7
30°-40°	2067.7	16.8
40°-50°	2118.0	17.2
50°-60°	1921.8	15.6
60°-70°	1499.9	12.2
70°-80°	850.7	6.9
80°-90°	178.6	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°	3677.5	29.9
0°-40°	5745.2	46.7
0°-60°	9785.1	79.5
0°-90°	12314.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12314.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5758	5758	5758	5758	5758	
5°	5752	5686	5743	5755	5737	537
15°	4809	4824	4704	4728	4677	1344
25°	3887	3938	3964	3869	3881	1793
35°	3294	3300	3294	3297	3294	2063
45°	2704	2725	2701	2812	2785	2091
55°	2123	2120	2114	2189	2210	1897
65°	1524	1491	1476	1545	1611	1510
75°	847	784	766	812	889	886
85°	147	132	132	123	129	194
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5758.1	5758.1	5758.1	5758.1	5758.1
2.5°	5794.0	5749.1	5710.2	5773.0	5767.0
5°	5752.1	5686.2	5743.1	5755.1	5737.1
7.5°	5641.3	5599.4	5602.4	5578.4	5575.4
10°	5350.8	5374.8	5326.9	5368.8	5347.8
12.5°	5102.3	5117.3	5033.4	5051.4	5027.5
15°	4808.9	4823.8	4704.1	4728.0	4677.1
17.5°	4488.5	4542.4	4443.6	4473.5	4419.6
20°	4248.9	4293.8	4296.8	4248.9	4078.3
22.5°	4060.3	4105.2	4141.1	3997.4	3979.4
25°	3886.6	3937.5	3964.5	3868.7	3880.6
27.5°	3712.9	3769.8	3769.8	3790.8	3763.9
30°	3587.2	3611.1	3572.2	3650.1	3626.1
32.5°	3437.5	3446.5	3413.5	3470.4	3386.6
35°	3293.7	3299.7	3293.7	3296.7	3293.7
37.5°	3156.0	3141.0	3168.0	3150.0	3206.9
40°	3003.3	3003.3	3015.3	3045.2	3090.1
42.5°	2862.6	2874.5	2859.6	2943.4	2961.4
45°	2703.9	2724.8	2700.9	2811.7	2784.7
47.5°	2560.1	2569.1	2563.1	2638.0	2644.0
50°	2404.4	2416.4	2422.4	2488.3	2497.3
52.5°	2275.7	2272.7	2251.7	2347.5	2362.5
55°	2123.0	2120.0	2114.0	2188.8	2209.8
57.5°	1967.3	1970.3	1985.2	2027.2	2078.1
60°	1826.5	1811.6	1823.5	1874.4	1916.4
62.5°	1682.8	1655.9	1628.9	1712.7	1751.7
65°	1524.1	1491.2	1476.2	1545.1	1610.9
67.5°	1377.4	1323.5	1314.5	1362.4	1440.3
70°	1209.7	1143.8	1140.8	1176.8	1269.6
72.5°	1024.1	967.2	952.2	1000.1	1083.9
75°	847.4	784.5	766.5	811.5	889.3
77.5°	655.8	604.9	592.9	616.8	679.7
80°	461.1	431.2	419.2	428.2	473.1
82.5°	290.4	269.5	263.5	260.5	284.5
85°	146.7	131.7	131.7	122.8	128.8
87.5°	44.9	41.9	38.9	29.9	32.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)