

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: P487066

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5HI-20-120-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: P487066
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-LD4-5HI-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

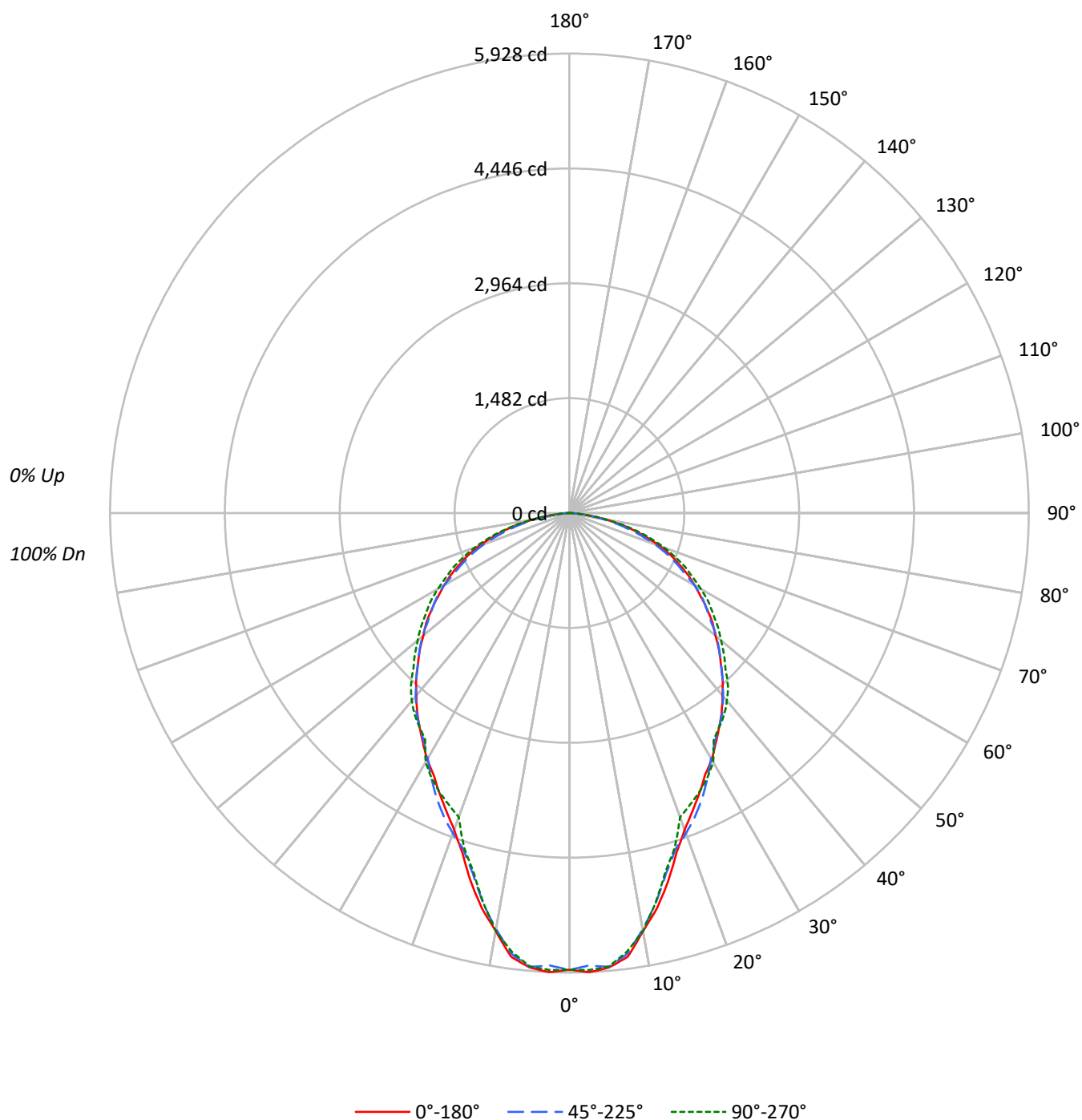
Lumens per Lamp: N/A
Luminaire Lumens: 12599.4 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 220
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					0
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°	7927	7927	7927
5°	7949	7936	7928
10°	7480	7446	7476
15°	6854	6704	6666
20°	6225	6295	5975
25°	5904	6022	5895
30°	5702	5678	5764
35°	5535	5535	5535
40°	5397	5419	5553
45°	5264	5258	5421
50°	5150	5188	5348
55°	5095	5074	5304
60°	5029	5021	5276
65°	4965	4809	5247
70°	4869	4592	5110
75°	4507	4077	4730
80°	3656	3323	3751
85°	2317	2081	2033



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	547.2	4.3
10°-20°	1368.0	10.9
20°-30°	1847.5	14.7
30°-40°	2115.6	16.8
40°-50°	2167.1	17.2
50°-60°	1966.3	15.6
60°-70°	1534.7	12.2
70°-80°	870.4	6.9
80°-90°	182.7	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°	3762.6	29.9
0°-40°	5878.2	46.7
0°-60°	10011.6	79.5
0°-90°	12599.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12599.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5891	5891	5891	5891	5891	
5°	5885	5818	5876	5888	5870	550
15°	4920	4936	4813	4838	4785	1375
25°	3977	4029	4056	3958	3970	1835
35°	3370	3376	3370	3373	3370	2111
45°	2766	2788	2763	2877	2849	2139
55°	2172	2169	2163	2240	2261	1941
65°	1559	1526	1510	1581	1648	1545
75°	867	803	784	830	910	907
85°	150	135	135	126	132	198
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5891.4	5891.4	5891.4	5891.4	5891.4
2.5°	5928.1	5882.2	5842.4	5906.7	5900.6
5°	5885.2	5817.8	5876.1	5888.3	5869.9
7.5°	5771.9	5729.0	5732.1	5707.6	5704.5
10°	5474.7	5499.2	5450.2	5493.1	5471.7
12.5°	5220.4	5235.8	5150.0	5168.4	5143.8
15°	4920.2	4935.5	4813.0	4837.5	4785.4
17.5°	4592.4	4647.5	4546.4	4577.1	4521.9
20°	4347.3	4393.3	4396.3	4347.3	4172.7
22.5°	4154.3	4200.2	4237.0	4090.0	4071.6
25°	3976.6	4028.7	4056.3	3958.2	3970.5
27.5°	3798.9	3857.1	3857.1	3878.6	3851.0
30°	3670.2	3694.7	3654.9	3734.6	3710.1
32.5°	3517.1	3526.2	3492.5	3550.8	3465.0
35°	3370.0	3376.1	3370.0	3373.1	3370.0
37.5°	3229.1	3213.8	3241.3	3222.9	3281.2
40°	3072.8	3072.8	3085.1	3115.7	3161.7
42.5°	2928.8	2941.1	2925.8	3011.6	3029.9
45°	2766.5	2787.9	2763.4	2876.8	2849.2
47.5°	2619.4	2628.6	2622.5	2699.1	2705.2
50°	2460.1	2472.4	2478.5	2545.9	2555.1
52.5°	2328.4	2325.3	2303.9	2401.9	2417.2
55°	2172.1	2169.1	2162.9	2239.5	2261.0
57.5°	2012.8	2015.9	2031.2	2074.1	2126.2
60°	1868.8	1853.5	1865.8	1917.8	1960.7
62.5°	1721.8	1694.2	1666.6	1752.4	1792.2
65°	1559.4	1525.7	1510.4	1580.8	1648.2
67.5°	1409.3	1354.1	1344.9	1394.0	1473.6
70°	1237.7	1170.3	1167.2	1204.0	1299.0
72.5°	1047.8	989.6	974.2	1023.3	1109.0
75°	867.0	802.7	784.3	830.2	909.9
77.5°	670.9	618.9	606.6	631.1	695.4
80°	471.8	441.2	428.9	438.1	484.1
82.5°	297.2	275.7	269.6	266.5	291.0
85°	150.1	134.8	134.8	125.6	131.7
87.5°	46.0	42.9	39.8	30.6	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)