

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: P487122

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-40-120-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: P487122
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-40-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

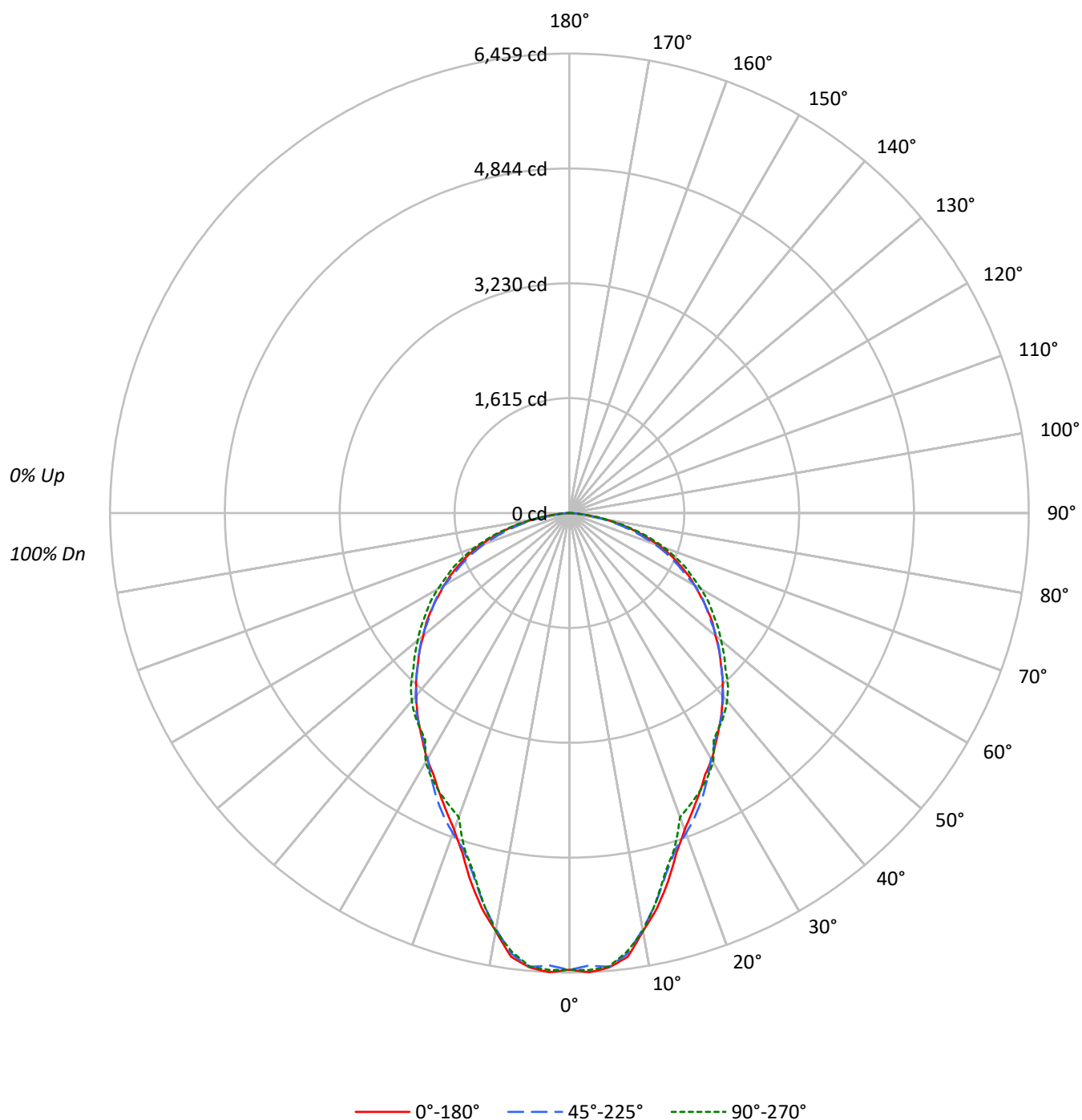
Lumens per Lamp: N/A
Luminaire Lumens: 13728.3 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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					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°	8637	8637	8637
5°	8661	8647	8638
10°	8150	8113	8145
15°	7468	7305	7263
20°	6782	6859	6510
25°	6433	6561	6423
30°	6213	6187	6281
35°	6031	6031	6031
40°	5881	5904	6051
45°	5736	5729	5907
50°	5611	5653	5827
55°	5552	5528	5779
60°	5480	5470	5749
65°	5409	5239	5718
70°	5305	5003	5568
75°	4911	4443	5154
80°	3983	3621	4086
85°	2526	2268	2215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	596.2	4.3
10°-20°	1490.6	10.9
20°-30°	2013.0	14.7
30°-40°	2305.2	16.8
40°-50°	2361.2	17.2
50°-60°	2142.5	15.6
60°-70°	1672.2	12.2
70°-80°	948.4	6.9
80°-90°	199.1	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°	4099.8	29.9
0°-40°	6404.9	46.7
0°-60°	10908.6	79.5
0°-90°	13728.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13728.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6419	6419	6419	6419	6419	
5°	6413	6339	6402	6416	6396	599
15°	5361	5378	5244	5271	5214	1498
25°	4333	4390	4420	4313	4326	1999
35°	3672	3679	3672	3675	3672	2300
45°	3014	3038	3011	3134	3104	2331
55°	2367	2363	2357	2440	2464	2115
65°	1699	1662	1646	1722	1796	1684
75°	945	875	855	905	991	988
85°	164	147	147	137	144	216
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6419.2	6419.2	6419.2	6419.2	6419.2
2.5°	6459.3	6409.2	6365.8	6435.9	6429.3
5°	6412.6	6339.1	6402.5	6415.9	6395.9
7.5°	6289.1	6242.3	6245.7	6219.0	6215.6
10°	5965.3	5992.0	5938.5	5985.3	5961.9
12.5°	5688.2	5704.9	5611.4	5631.4	5604.7
15°	5361.1	5377.7	5244.2	5270.9	5214.2
17.5°	5003.9	5064.0	4953.8	4987.2	4927.1
20°	4736.8	4786.9	4790.2	4736.8	4546.5
22.5°	4526.5	4576.6	4616.6	4456.4	4436.4
25°	4332.9	4389.7	4419.7	4312.9	4326.2
27.5°	4139.3	4202.7	4202.7	4226.1	4196.0
30°	3999.1	4025.8	3982.4	4069.2	4042.5
32.5°	3832.2	3842.2	3805.5	3868.9	3775.4
35°	3672.0	3678.6	3672.0	3675.3	3672.0
37.5°	3518.4	3501.7	3531.8	3511.7	3575.1
40°	3348.2	3348.2	3361.5	3394.9	3445.0
42.5°	3191.3	3204.6	3187.9	3281.4	3301.4
45°	3014.3	3037.7	3011.0	3134.5	3104.5
47.5°	2854.1	2864.1	2857.4	2940.9	2947.6
50°	2680.5	2693.9	2700.6	2774.0	2784.0
52.5°	2537.0	2533.6	2510.3	2617.1	2633.8
55°	2366.7	2363.4	2356.7	2440.2	2463.5
57.5°	2193.2	2196.5	2213.2	2259.9	2316.7
60°	2036.3	2019.6	2032.9	2089.7	2136.4
62.5°	1876.0	1846.0	1815.9	1909.4	1952.8
65°	1699.1	1662.4	1645.7	1722.5	1795.9
67.5°	1535.5	1475.5	1465.4	1518.9	1605.6
70°	1348.6	1275.2	1271.8	1311.9	1415.4
72.5°	1141.6	1078.2	1061.5	1114.9	1208.4
75°	944.7	874.6	854.6	904.6	991.4
77.5°	731.1	674.3	661.0	687.7	757.8
80°	514.1	480.7	467.3	477.4	527.4
82.5°	323.8	300.4	293.8	290.4	317.1
85°	163.6	146.9	146.9	136.9	143.5
87.5°	50.1	46.7	43.4	33.4	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)