

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: P487013

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3LO-35-120-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: P487013
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-LD4-3LO-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

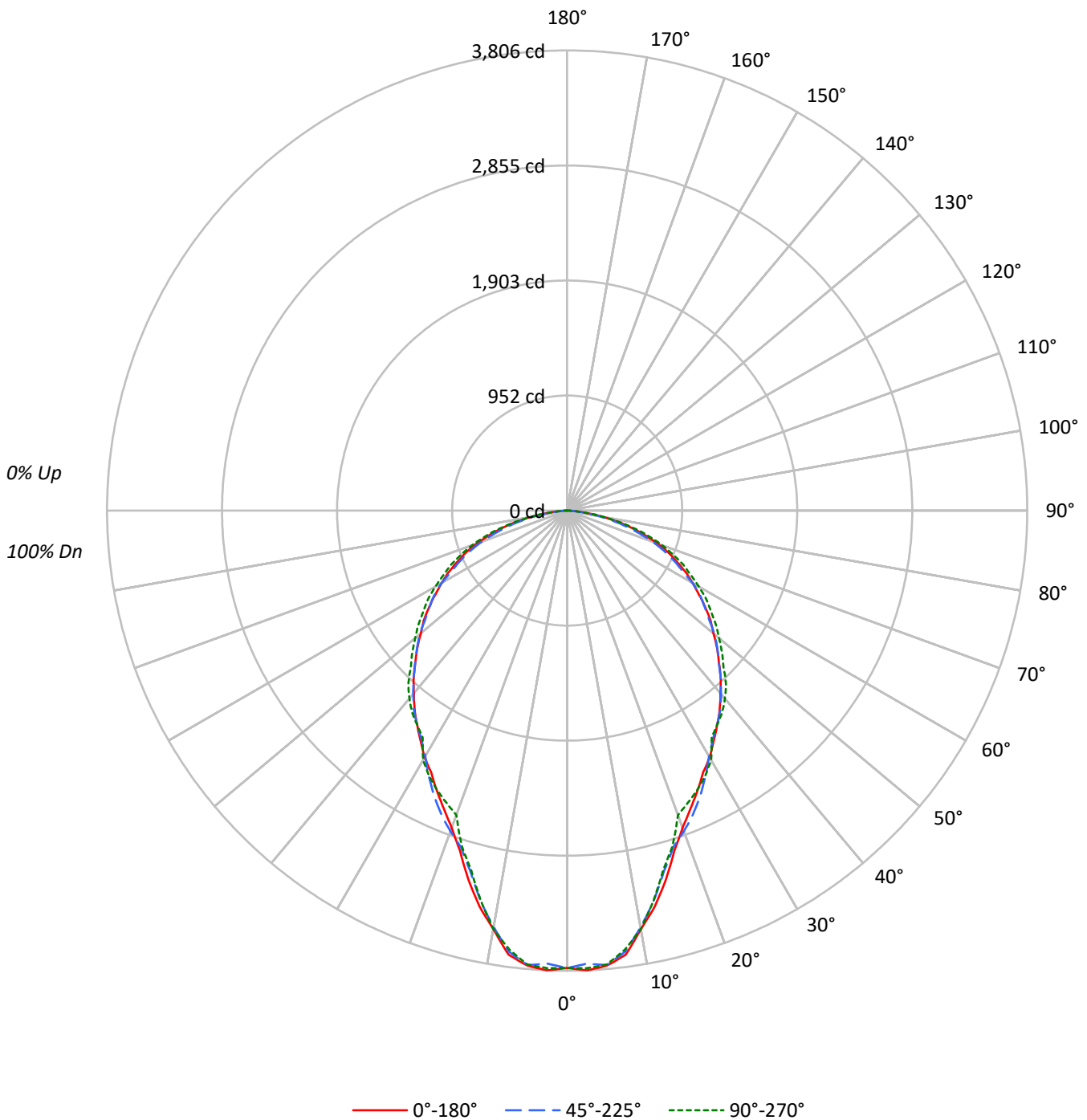
Lumens per Lamp: N/A
Luminaire Lumens: 8088.5 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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	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					100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31					31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28					28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5089	5089	5089
5°	5103	5095	5090
10°	4802	4780	4799
15°	4400	4304	4279
20°	3996	4041	3836
25°	3790	3866	3784
30°	3661	3645	3700
35°	3554	3554	3554
40°	3465	3479	3565
45°	3379	3376	3480
50°	3306	3331	3433
55°	3271	3257	3405
60°	3228	3223	3387
65°	3187	3087	3369
70°	3126	2948	3281
75°	2894	2617	3036
80°	2347	2133	2408
85°	1488	1335	1306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.3	4.3
10°-20°	878.2	10.9
20°-30°	1186.0	14.7
30°-40°	1358.2	16.8
40°-50°	1391.2	17.2
50°-60°	1262.3	15.6
60°-70°	985.2	12.2
70°-80°	558.8	6.9
80°-90°	117.3	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°	2415.5	29.9
0°-40°	3773.7	46.7
0°-60°	6427.2	79.5
0°-90°	8088.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8088.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3782	3782	3782	3782	3782	
5°	3778	3735	3772	3780	3768	353
15°	3159	3168	3090	3106	3072	883
25°	2553	2586	2604	2541	2549	1178
35°	2164	2167	2164	2165	2164	1355
45°	1776	1790	1774	1847	1829	1373
55°	1394	1392	1388	1438	1452	1246
65°	1001	980	970	1015	1058	992
75°	557	515	504	533	584	582
85°	96	86	86	81	85	127
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3782.1	3782.1	3782.1	3782.1	3782.1
2.5°	3805.7	3776.2	3750.6	3791.9	3788.0
5°	3778.2	3734.9	3772.3	3780.1	3768.3
7.5°	3705.4	3677.9	3679.8	3664.1	3662.1
10°	3514.6	3530.4	3498.9	3526.4	3512.7
12.5°	3351.4	3361.2	3306.2	3318.0	3302.2
15°	3158.6	3168.5	3089.8	3105.5	3072.1
17.5°	2948.2	2983.6	2918.7	2938.4	2903.0
20°	2790.9	2820.4	2822.3	2790.9	2678.8
22.5°	2667.0	2696.5	2720.1	2625.6	2613.8
25°	2552.9	2586.3	2604.0	2541.1	2548.9
27.5°	2438.8	2476.2	2476.2	2489.9	2472.2
30°	2356.2	2371.9	2346.4	2397.5	2381.8
32.5°	2257.9	2263.8	2242.1	2279.5	2224.4
35°	2163.5	2167.4	2163.5	2165.4	2163.5
37.5°	2073.0	2063.2	2080.9	2069.1	2106.4
40°	1972.7	1972.7	1980.5	2000.2	2029.7
42.5°	1880.2	1888.1	1878.3	1933.3	1945.1
45°	1776.0	1789.8	1774.0	1846.8	1829.1
47.5°	1681.6	1687.5	1683.6	1732.7	1736.7
50°	1579.3	1587.2	1591.1	1634.4	1640.3
52.5°	1494.8	1492.8	1479.0	1542.0	1551.8
55°	1394.4	1392.5	1388.5	1437.7	1451.5
57.5°	1292.2	1294.1	1304.0	1331.5	1364.9
60°	1199.7	1189.9	1197.8	1231.2	1258.7
62.5°	1105.3	1087.6	1069.9	1125.0	1150.6
65°	1001.1	979.5	969.6	1014.9	1058.1
67.5°	904.7	869.3	863.4	894.9	946.0
70°	794.6	751.3	749.3	772.9	833.9
72.5°	672.6	635.3	625.4	656.9	712.0
75°	556.6	515.3	503.5	533.0	584.1
77.5°	430.7	397.3	389.4	405.2	446.5
80°	302.9	283.2	275.3	281.2	310.8
82.5°	190.8	177.0	173.1	171.1	186.8
85°	96.4	86.5	86.5	80.6	84.6
87.5°	29.5	27.5	25.6	19.7	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)