

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: P485676

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-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: P485676
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-24-2-INS-89BC-LD4-2LO-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

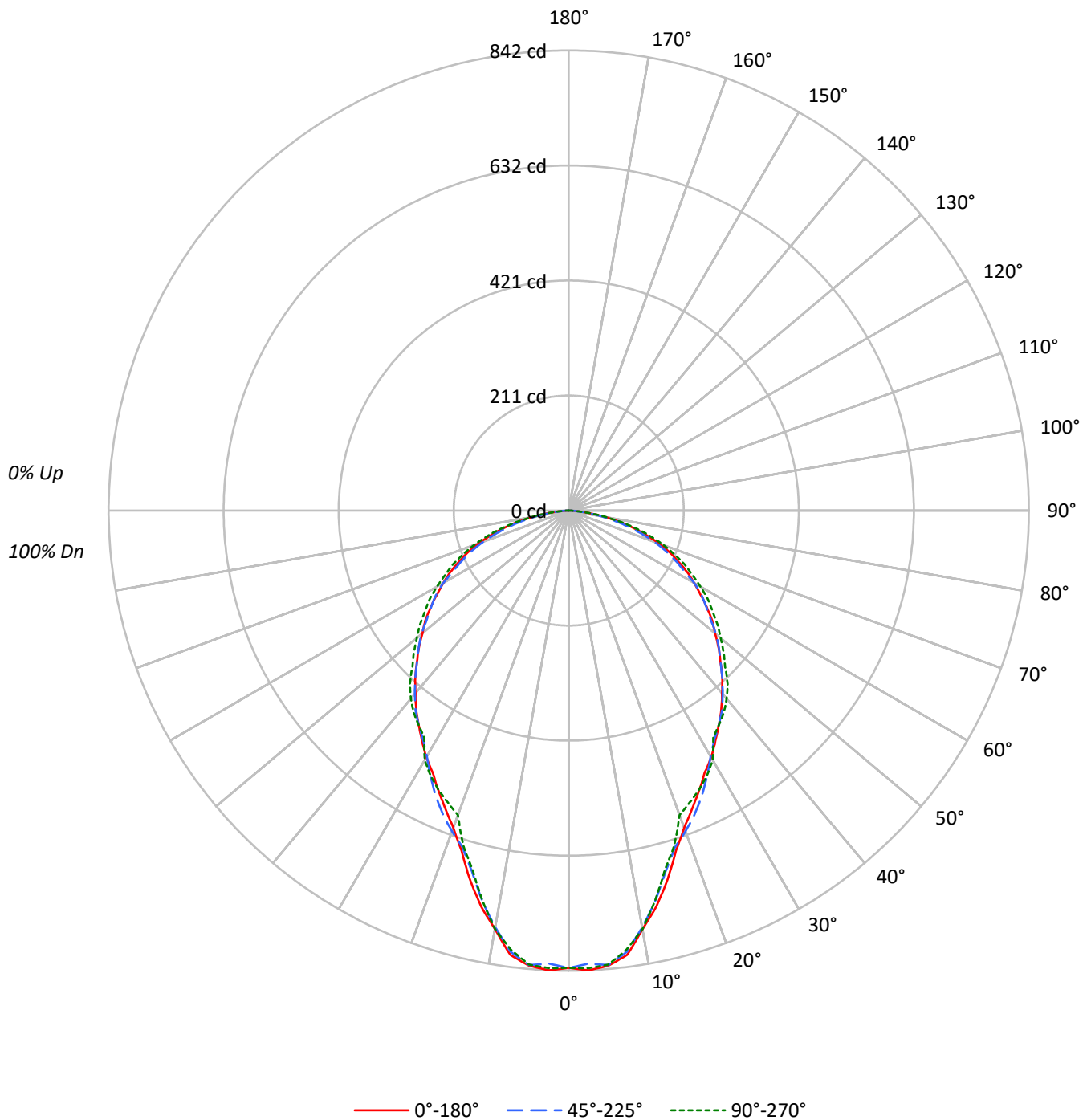
Lumens per Lamp: N/A
Luminaire Lumens: 1789.6 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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				0
RW	70	50	30	10	70	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			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2252	2252	2252
5°	2258	2254	2252
10°	2125	2115	2124
15°	1947	1904	1894
20°	1768	1788	1697
25°	1677	1711	1675
30°	1620	1613	1638
35°	1573	1573	1573
40°	1533	1539	1578
45°	1495	1494	1540
50°	1463	1474	1519
55°	1447	1441	1506
60°	1428	1426	1499
65°	1410	1366	1491
70°	1383	1304	1452
75°	1280	1158	1343
80°	1038	944	1066
85°	658	590	577



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	4.3
10°-20°	194.3	10.9
20°-30°	262.4	14.7
30°-40°	300.5	16.8
40°-50°	307.8	17.2
50°-60°	279.3	15.6
60°-70°	218.0	12.2
70°-80°	123.6	6.9
80°-90°	26.0	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°	534.4	29.9
0°-40°	834.9	46.7
0°-60°	1422.0	79.5
0°-90°	1789.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1789.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	837	837	837	837	837	
5°	836	826	835	836	834	78
15°	699	701	684	687	680	195
25°	565	572	576	562	564	261
35°	479	480	479	479	479	300
45°	393	396	392	409	405	304
55°	308	308	307	318	321	276
65°	222	217	214	224	234	220
75°	123	114	111	118	129	129
85°	21	19	19	18	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.8	836.8	836.8	836.8	836.8
2.5°	842.0	835.5	829.8	839.0	838.1
5°	835.9	826.4	834.6	836.4	833.8
7.5°	819.8	813.7	814.2	810.7	810.3
10°	777.6	781.1	774.1	780.2	777.2
12.5°	741.5	743.7	731.5	734.1	730.6
15°	698.9	701.0	683.6	687.1	679.7
17.5°	652.3	660.1	645.8	650.1	642.3
20°	617.5	624.0	624.4	617.5	592.7
22.5°	590.1	596.6	601.8	580.9	578.3
25°	564.8	572.2	576.1	562.2	564.0
27.5°	539.6	547.9	547.9	550.9	547.0
30°	521.3	524.8	519.1	530.5	527.0
32.5°	499.6	500.9	496.1	504.3	492.2
35°	478.7	479.5	478.7	479.1	478.7
37.5°	458.7	456.5	460.4	457.8	466.1
40°	436.5	436.5	438.2	442.6	449.1
42.5°	416.0	417.7	415.6	427.8	430.4
45°	392.9	396.0	392.5	408.6	404.7
47.5°	372.1	373.4	372.5	383.4	384.2
50°	349.4	351.2	352.0	361.6	362.9
52.5°	330.7	330.3	327.2	341.2	343.3
55°	308.5	308.1	307.2	318.1	321.1
57.5°	285.9	286.3	288.5	294.6	302.0
60°	265.4	263.3	265.0	272.4	278.5
62.5°	244.6	240.6	236.7	248.9	254.6
65°	221.5	216.7	214.5	224.5	234.1
67.5°	200.2	192.3	191.0	198.0	209.3
70°	175.8	166.2	165.8	171.0	184.5
72.5°	148.8	140.6	138.4	145.3	157.5
75°	123.1	114.0	111.4	117.9	129.2
77.5°	95.3	87.9	86.2	89.6	98.8
80°	67.0	62.7	60.9	62.2	68.8
82.5°	42.2	39.2	38.3	37.9	41.3
85°	21.3	19.1	19.1	17.8	18.7
87.5°	6.5	6.1	5.7	4.4	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)