

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: P485808

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-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: P485808
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-LD4-6HI-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

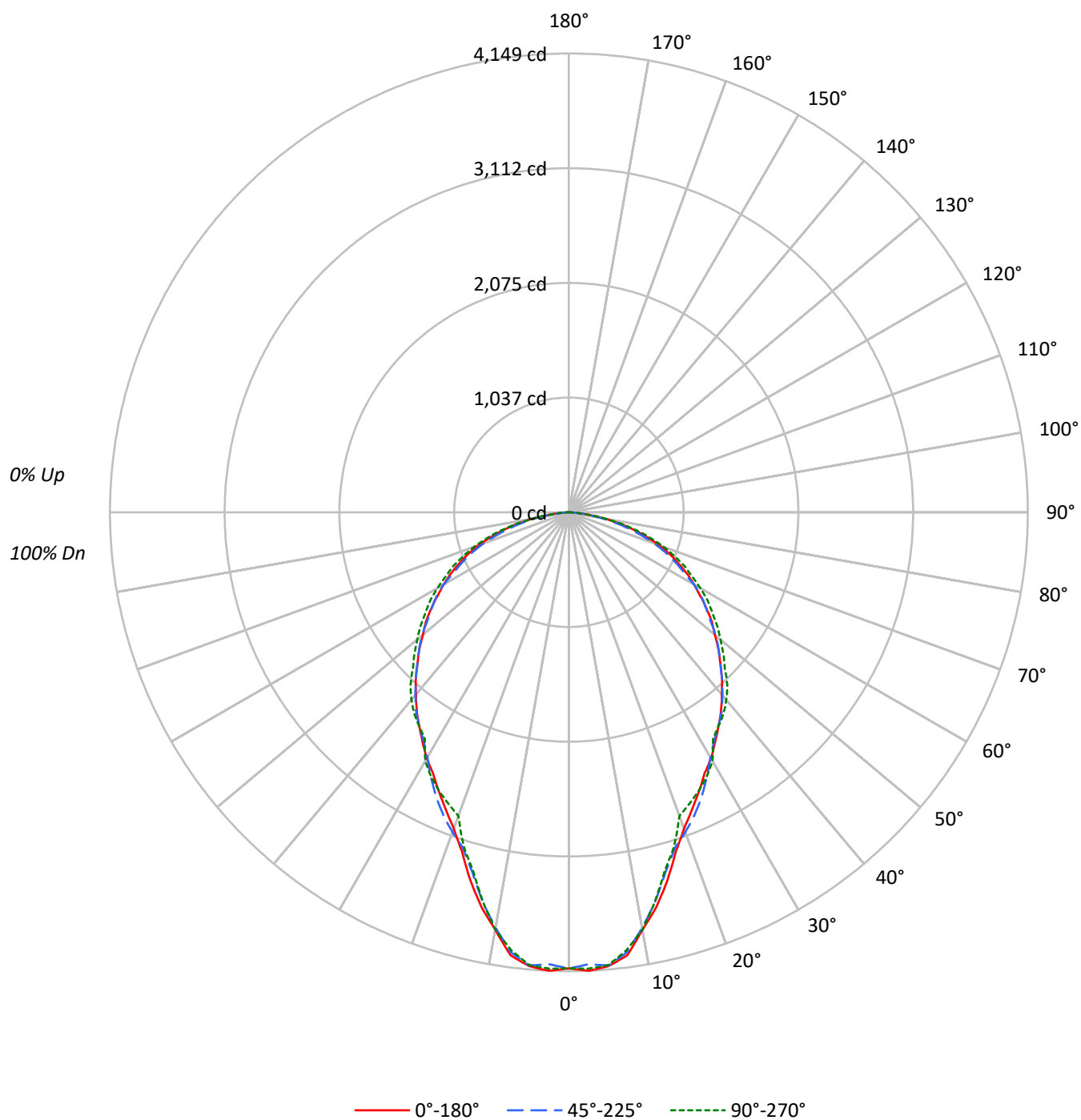
Lumens per Lamp: N/A
Luminaire Lumens: 8818.6 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	11096	11096	11096
5°	11127	11110	11098
10°	10471	10424	10465
15°	9594	9385	9331
20°	8714	8812	8363
25°	8264	8430	8251
30°	7982	7949	8069
35°	7749	7749	7749
40°	7555	7585	7774
45°	7369	7361	7589
50°	7209	7262	7487
55°	7133	7103	7424
60°	7040	7028	7386
65°	6950	6731	7345
70°	6816	6428	7153
75°	6309	5707	6622
80°	5117	4652	5250
85°	3245	2912	2847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.0	4.3
10°-20°	957.5	10.9
20°-30°	1293.1	14.7
30°-40°	1480.8	16.8
40°-50°	1516.8	17.2
50°-60°	1376.3	15.6
60°-70°	1074.1	12.2
70°-80°	609.2	6.9
80°-90°	127.9	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°	2633.5	29.9
0°-40°	4114.3	46.7
0°-60°	7007.3	79.5
0°-90°	8818.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8818.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4124	4124	4124	4124	4124	
5°	4119	4072	4113	4121	4108	385
15°	3444	3454	3369	3386	3349	962
25°	2783	2820	2839	2770	2779	1284
35°	2359	2363	2359	2361	2359	1478
45°	1936	1951	1934	2014	1994	1497
55°	1520	1518	1514	1568	1582	1359
65°	1092	1068	1057	1106	1154	1082
75°	607	562	549	581	637	635
85°	105	94	94	88	92	139
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4123.5	4123.5	4123.5	4123.5	4123.5
2.5°	4149.2	4117.1	4089.2	4134.2	4129.9
5°	4119.2	4072.0	4112.8	4121.4	4108.5
7.5°	4039.9	4009.9	4012.0	3994.8	3992.7
10°	3831.9	3849.0	3814.7	3844.7	3829.7
12.5°	3653.9	3664.6	3604.6	3617.4	3600.3
15°	3443.8	3454.5	3368.7	3385.9	3349.4
17.5°	3214.3	3252.9	3182.2	3203.6	3165.0
20°	3042.8	3074.9	3077.1	3042.8	2920.5
22.5°	2907.7	2939.8	2965.6	2862.7	2849.8
25°	2783.3	2819.8	2839.1	2770.4	2779.0
27.5°	2658.9	2699.7	2699.7	2714.7	2695.4
30°	2568.9	2586.0	2558.2	2613.9	2596.8
32.5°	2461.7	2468.1	2444.5	2485.3	2425.2
35°	2358.7	2363.0	2358.7	2360.9	2358.7
37.5°	2260.1	2249.4	2268.7	2255.8	2296.6
40°	2150.7	2150.7	2159.3	2180.8	2212.9
42.5°	2050.0	2058.5	2047.8	2107.9	2120.7
45°	1936.3	1951.3	1934.2	2013.5	1994.2
47.5°	1833.4	1839.8	1835.5	1889.1	1893.4
50°	1721.9	1730.5	1734.7	1781.9	1788.4
52.5°	1629.7	1627.5	1612.5	1681.1	1691.9
55°	1520.3	1518.2	1513.9	1567.5	1582.5
57.5°	1408.8	1411.0	1421.7	1451.7	1488.1
60°	1308.0	1297.3	1305.9	1342.3	1372.4
62.5°	1205.1	1185.8	1166.5	1226.5	1254.4
65°	1091.5	1067.9	1057.1	1106.5	1153.6
67.5°	986.4	947.8	941.4	975.7	1031.4
70°	866.3	819.1	817.0	842.7	909.2
72.5°	733.4	692.6	681.9	716.2	776.2
75°	606.8	561.8	548.9	581.1	636.9
77.5°	469.6	433.2	424.6	441.7	486.8
80°	330.2	308.8	300.2	306.6	338.8
82.5°	208.0	193.0	188.7	186.6	203.7
85°	105.1	94.3	94.3	87.9	92.2
87.5°	32.2	30.0	27.9	21.4	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)