

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: P485741

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-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: P485741
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-LD4-4HI-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

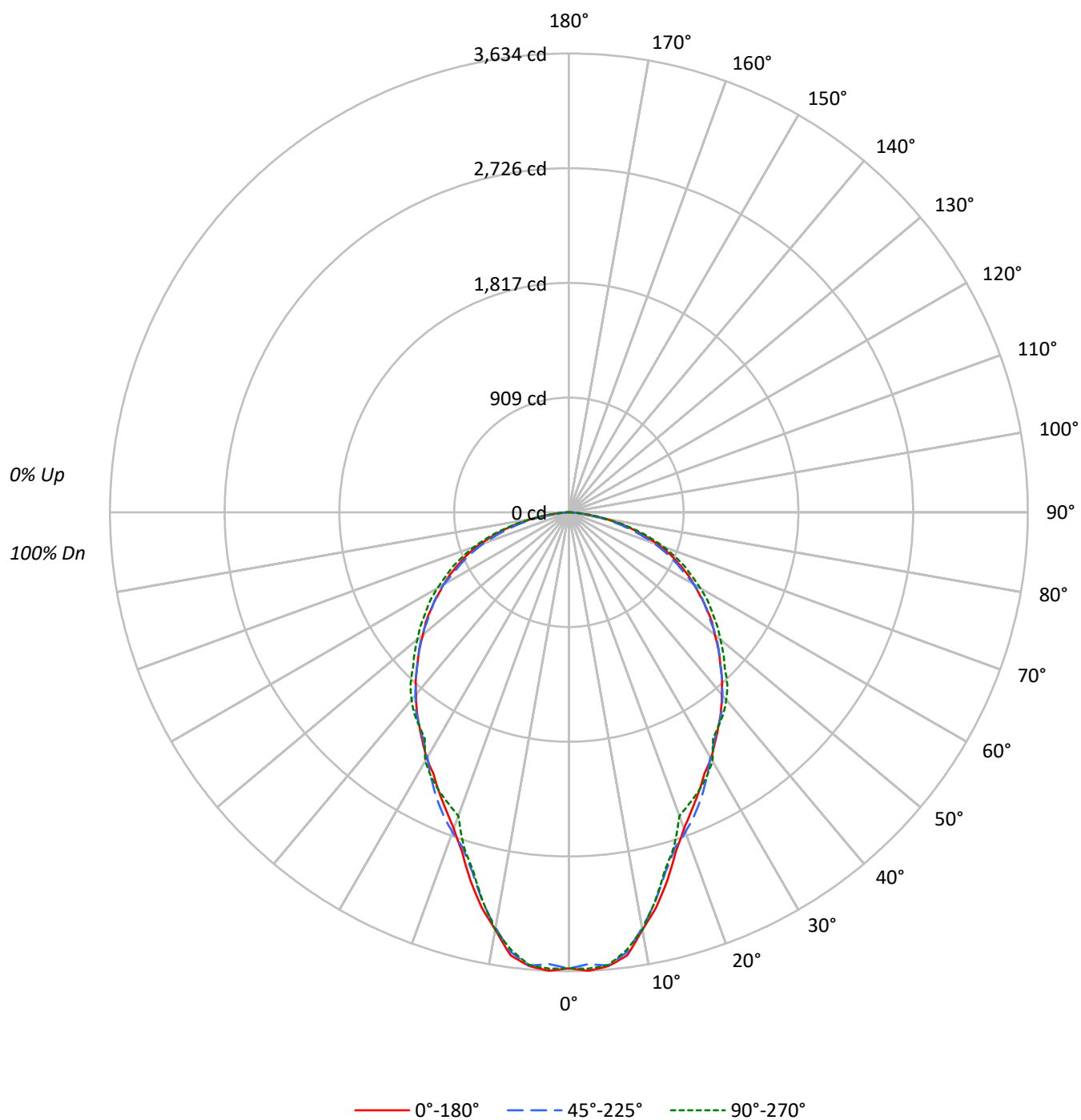
Lumens per Lamp: N/A
Luminaire Lumens: 7723.2 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	9718	9718	9718
5°	9745	9730	9720
10°	9170	9129	9165
15°	8402	8219	8172
20°	7631	7717	7325
25°	7238	7383	7226
30°	6991	6962	7067
35°	6786	6786	6786
40°	6617	6643	6808
45°	6454	6446	6647
50°	6313	6360	6557
55°	6247	6220	6502
60°	6166	6155	6469
65°	6087	5895	6433
70°	5969	5629	6265
75°	5526	4999	5800
80°	4482	4074	4598
85°	2841	2550	2495



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.4	4.3
10°-20°	838.6	10.9
20°-30°	1132.5	14.7
30°-40°	1296.8	16.8
40°-50°	1328.4	17.2
50°-60°	1205.3	15.6
60°-70°	940.7	12.2
70°-80°	533.6	6.9
80°-90°	112.0	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°	2306.4	29.9
0°-40°	3603.2	46.7
0°-60°	6136.9	79.5
0°-90°	7723.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7723.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3611	3611	3611	3611	3611	
5°	3608	3566	3602	3609	3598	337
15°	3016	3025	2950	2965	2933	843
25°	2438	2470	2486	2426	2434	1125
35°	2066	2070	2066	2068	2066	1294
45°	1696	1709	1694	1763	1746	1311
55°	1332	1330	1326	1373	1386	1190
65°	956	935	926	969	1010	947
75°	532	492	481	509	558	556
85°	92	83	83	77	81	122
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3611.3	3611.3	3611.3	3611.3	3611.3
2.5°	3633.8	3605.7	3581.3	3620.7	3616.9
5°	3607.5	3566.2	3601.9	3609.4	3598.2
7.5°	3538.1	3511.8	3513.7	3498.6	3496.7
10°	3355.9	3370.9	3340.9	3367.2	3354.0
12.5°	3200.0	3209.4	3156.8	3168.1	3153.1
15°	3016.0	3025.4	2950.3	2965.3	2933.4
17.5°	2815.1	2848.9	2786.9	2805.7	2771.9
20°	2664.8	2693.0	2694.9	2664.8	2557.8
22.5°	2546.5	2574.7	2597.2	2507.1	2495.8
25°	2437.6	2469.5	2486.4	2426.3	2433.8
27.5°	2328.7	2364.3	2364.3	2377.5	2360.6
30°	2249.8	2264.8	2240.4	2289.2	2274.2
32.5°	2155.9	2161.5	2140.9	2176.5	2124.0
35°	2065.7	2069.5	2065.7	2067.6	2065.7
37.5°	1979.4	1970.0	1986.9	1975.6	2011.3
40°	1883.6	1883.6	1891.1	1909.9	1938.0
42.5°	1795.3	1802.8	1793.4	1846.0	1857.3
45°	1695.8	1708.9	1693.9	1763.4	1746.5
47.5°	1605.7	1611.3	1607.5	1654.5	1658.2
50°	1508.0	1515.5	1519.3	1560.6	1566.2
52.5°	1427.2	1425.4	1412.2	1472.3	1481.7
55°	1331.5	1329.6	1325.8	1372.8	1385.9
57.5°	1233.8	1235.7	1245.1	1271.4	1303.3
60°	1145.6	1136.2	1143.7	1175.6	1201.9
62.5°	1055.4	1038.5	1021.6	1074.2	1098.6
65°	955.9	935.2	925.8	969.0	1010.3
67.5°	863.9	830.1	824.4	854.5	903.3
70°	758.7	717.4	715.5	738.0	796.3
72.5°	642.3	606.6	597.2	627.2	679.8
75°	531.5	492.0	480.8	508.9	557.8
77.5°	411.3	379.3	371.8	386.9	426.3
80°	289.2	270.4	262.9	268.5	296.7
82.5°	182.2	169.0	165.3	163.4	178.4
85°	92.0	82.6	82.6	77.0	80.8
87.5°	28.2	26.3	24.4	18.8	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)