

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: P485774

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-30-120-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: P485774
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-LD4-5HI-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

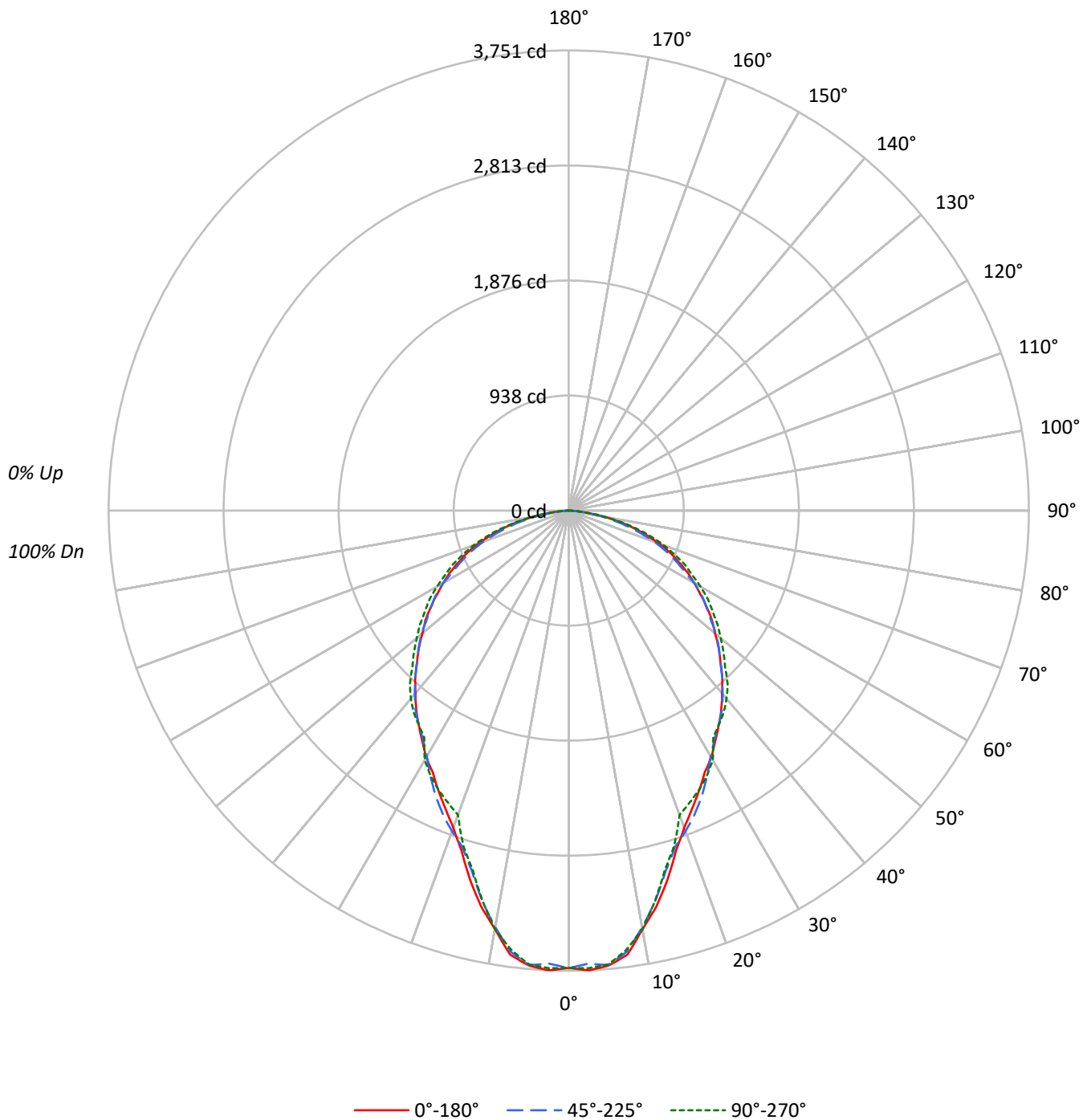
Lumens per Lamp: N/A
Luminaire Lumens: 7971.5 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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°	10030	10030	10030
5°	10058	10042	10032
10°	9465	9422	9460
15°	8673	8483	8435
20°	7877	7965	7560
25°	7470	7620	7459
30°	7215	7185	7294
35°	7004	7004	7004
40°	6829	6857	7027
45°	6661	6654	6860
50°	6516	6565	6768
55°	6448	6420	6711
60°	6364	6353	6676
65°	6282	6085	6640
70°	6161	5810	6467
75°	5703	5159	5986
80°	4626	4206	4747
85°	2933	2634	2572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.2	4.3
10°-20°	865.5	10.9
20°-30°	1168.9	14.7
30°-40°	1338.5	16.8
40°-50°	1371.1	17.2
50°-60°	1244.1	15.6
60°-70°	971.0	12.2
70°-80°	550.7	6.9
80°-90°	115.6	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°	2380.6	29.9
0°-40°	3719.1	46.7
0°-60°	6334.2	79.5
0°-90°	7971.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7971.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3727	3727	3727	3727	3727	
5°	3724	3681	3718	3726	3714	348
15°	3113	3123	3045	3061	3028	870
25°	2516	2549	2566	2504	2512	1161
35°	2132	2136	2132	2134	2132	1336
45°	1750	1764	1748	1820	1803	1353
55°	1374	1372	1368	1417	1430	1228
65°	987	965	956	1000	1043	978
75°	548	508	496	525	576	574
85°	95	85	85	80	83	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3727.4	3727.4	3727.4	3727.4	3727.4
2.5°	3750.7	3721.6	3696.4	3737.1	3733.2
5°	3723.5	3680.9	3717.7	3725.5	3713.8
7.5°	3651.8	3624.7	3626.6	3611.1	3609.2
10°	3463.8	3479.3	3448.3	3475.4	3461.9
12.5°	3302.9	3312.6	3258.3	3270.0	3254.5
15°	3113.0	3122.6	3045.1	3060.6	3027.7
17.5°	2905.6	2940.4	2876.5	2895.9	2861.0
20°	2750.5	2779.6	2781.5	2750.5	2640.0
22.5°	2628.4	2657.4	2680.7	2587.7	2576.0
25°	2516.0	2548.9	2566.3	2504.3	2512.1
27.5°	2403.5	2440.4	2440.4	2453.9	2436.5
30°	2322.1	2337.6	2312.4	2362.8	2347.3
32.5°	2225.2	2231.0	2209.7	2246.5	2192.3
35°	2132.2	2136.0	2132.2	2134.1	2132.2
37.5°	2043.0	2033.3	2050.8	2039.1	2076.0
40°	1944.1	1944.1	1951.9	1971.3	2000.4
42.5°	1853.0	1860.8	1851.1	1905.4	1917.0
45°	1750.3	1763.9	1748.4	1820.1	1802.6
47.5°	1657.3	1663.1	1659.2	1707.7	1711.5
50°	1556.5	1564.2	1568.1	1610.8	1616.6
52.5°	1473.1	1471.2	1457.6	1519.7	1529.3
55°	1374.3	1372.3	1368.5	1416.9	1430.5
57.5°	1273.5	1275.4	1285.1	1312.2	1345.2
60°	1182.4	1172.7	1180.4	1213.4	1240.5
62.5°	1089.3	1071.9	1054.5	1108.7	1133.9
65°	986.6	965.3	955.6	1000.2	1042.8
67.5°	891.6	856.7	850.9	881.9	932.3
70°	783.1	740.4	738.5	761.8	821.9
72.5°	662.9	626.1	616.4	647.4	701.7
75°	548.5	507.8	496.2	525.3	575.7
77.5°	424.5	391.5	383.8	399.3	440.0
80°	298.5	279.1	271.4	277.2	306.3
82.5°	188.0	174.4	170.6	168.6	184.1
85°	95.0	85.3	85.3	79.5	83.3
87.5°	29.1	27.1	25.2	19.4	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)