

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: P485839

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-40-120-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: P485839
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-LD4-6STD-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

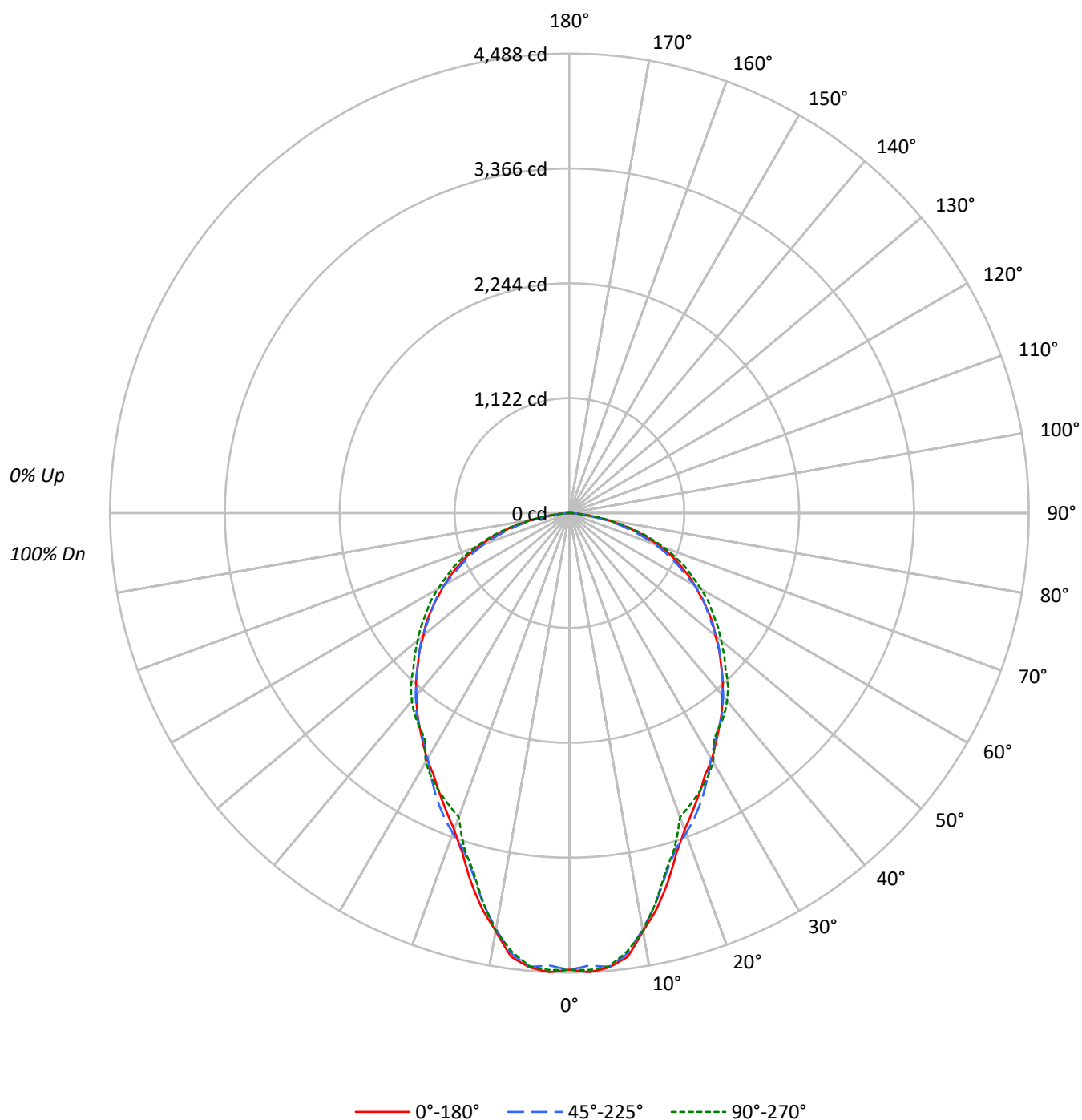
Lumens per Lamp: N/A
Luminaire Lumens: 9539.3 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	12003	12003	12003
5°	12037	12018	12005
10°	11326	11276	11320
15°	10378	10152	10094
20°	9426	9532	9047
25°	8940	9119	8926
30°	8634	8598	8728
35°	8382	8382	8382
40°	8173	8205	8409
45°	7971	7962	8209
50°	7798	7856	8099
55°	7716	7683	8031
60°	7615	7603	7990
65°	7518	7281	7946
70°	7373	6953	7738
75°	6825	6174	7163
80°	5535	5032	5680
85°	3511	3152	3078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	414.3	4.3
10°-20°	1035.7	10.9
20°-30°	1398.7	14.7
30°-40°	1601.8	16.8
40°-50°	1640.7	17.2
50°-60°	1488.7	15.6
60°-70°	1161.9	12.2
70°-80°	659.0	6.9
80°-90°	138.3	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°	2848.8	29.9
0°-40°	4450.5	46.7
0°-60°	7580.0	79.5
0°-90°	9539.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9539.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4460	4460	4460	4460	4460	
5°	4456	4405	4449	4458	4444	416
15°	3725	3737	3644	3663	3623	1041
25°	3011	3050	3071	2997	3006	1389
35°	2552	2556	2552	2554	2552	1598
45°	2095	2111	2092	2178	2157	1619
55°	1645	1642	1638	1696	1712	1470
65°	1181	1155	1144	1197	1248	1170
75°	656	608	594	629	689	687
85°	114	102	102	95	100	150
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4460.5	4460.5	4460.5	4460.5	4460.5
2.5°	4488.3	4453.5	4423.4	4472.1	4467.5
5°	4455.9	4404.8	4448.9	4458.2	4444.3
7.5°	4370.0	4337.6	4339.9	4321.3	4319.0
10°	4145.0	4163.6	4126.5	4159.0	4142.7
12.5°	3952.5	3964.1	3899.2	3913.1	3894.5
15°	3725.2	3736.8	3644.0	3662.6	3623.1
17.5°	3477.0	3518.8	3442.2	3465.4	3423.7
20°	3291.4	3326.2	3328.6	3291.4	3159.2
22.5°	3145.3	3180.1	3207.9	3096.6	3082.7
25°	3010.8	3050.2	3071.1	2996.9	3006.1
27.5°	2876.2	2920.3	2920.3	2936.6	2915.7
30°	2778.8	2797.4	2767.2	2827.5	2809.0
32.5°	2662.8	2669.8	2644.3	2688.4	2623.4
35°	2551.5	2556.1	2551.5	2553.8	2551.5
37.5°	2444.8	2433.2	2454.1	2440.2	2484.2
40°	2326.5	2326.5	2335.8	2359.0	2393.8
42.5°	2217.5	2226.8	2215.2	2280.1	2294.0
45°	2094.6	2110.8	2092.2	2178.1	2157.2
47.5°	1983.2	1990.2	1985.5	2043.5	2048.2
50°	1862.6	1871.9	1876.5	1927.5	1934.5
52.5°	1762.9	1760.5	1744.3	1818.5	1830.1
55°	1644.6	1642.2	1637.6	1695.6	1711.8
57.5°	1523.9	1526.3	1537.9	1570.3	1609.8
60°	1414.9	1403.3	1412.6	1452.0	1484.5
62.5°	1303.6	1282.7	1261.8	1326.8	1356.9
65°	1180.7	1155.1	1143.5	1196.9	1247.9
67.5°	1067.0	1025.2	1018.3	1055.4	1115.7
70°	937.1	886.1	883.7	911.6	983.5
72.5°	793.3	749.2	737.6	774.7	839.7
75°	656.4	607.7	593.8	628.6	688.9
77.5°	508.0	468.5	459.3	477.8	526.5
80°	357.2	334.0	324.7	331.7	366.5
82.5°	225.0	208.8	204.1	201.8	220.4
85°	113.7	102.1	102.1	95.1	99.7
87.5°	34.8	32.5	30.2	23.2	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)