

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: P487073

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5HI-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: P487073
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-24-4-INS-89BC-LD4-5HI-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

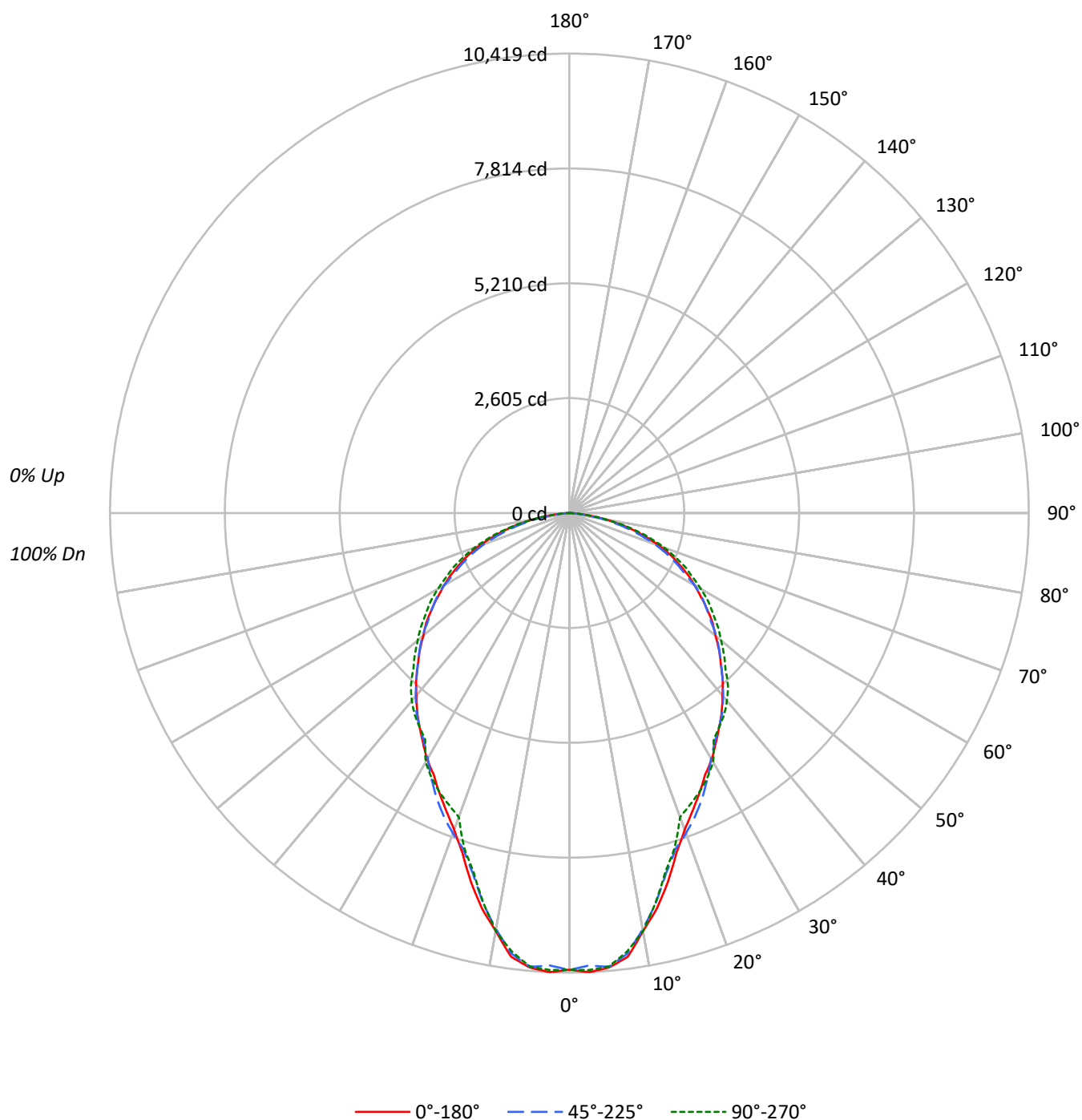
Lumens per Lamp: N/A
Luminaire Lumens: 22143.5 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 220
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°	13931	13931	13931
5°	13970	13948	13934
10°	13146	13087	13139
15°	12045	11783	11715
20°	10940	11063	10500
25°	10376	10583	10360
30°	10022	9980	10130
35°	9728	9728	9728
40°	9486	9523	9760
45°	9252	9241	9528
50°	9050	9118	9400
55°	8955	8917	9321
60°	8839	8824	9273
65°	8725	8451	9223
70°	8558	8070	8981
75°	7922	7166	8314
80°	6425	5841	6592
85°	4072	3657	3574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	961.7	4.3
10°-20°	2404.2	10.9
20°-30°	3246.9	14.7
30°-40°	3718.2	16.8
40°-50°	3808.6	17.2
50°-60°	3455.8	15.6
60°-70°	2697.2	12.2
70°-80°	1529.8	6.9
80°-90°	321.1	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°	6612.8	29.9
0°-40°	10331.0	46.7
0°-60°	17595.4	79.5
0°-90°	22143.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22143.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10354	10354	10354	10354	10354	
5°	10343	10225	10327	10349	10316	966
15°	8647	8674	8459	8502	8410	2417
25°	6989	7080	7129	6957	6978	3225
35°	5923	5934	5923	5928	5923	3710
45°	4862	4900	4857	5056	5008	3759
55°	3818	3812	3801	3936	3974	3412
65°	2741	2681	2654	2778	2897	2716
75°	1524	1411	1378	1459	1599	1594
85°	264	237	237	221	232	348
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10354.1	10354.1	10354.1	10354.1	10354.1
2.5°	10418.7	10338.0	10268.0	10381.0	10370.3
5°	10343.3	10224.9	10327.2	10348.7	10316.4
7.5°	10144.1	10068.7	10074.1	10031.1	10025.7
10°	9621.8	9664.9	9578.8	9654.2	9616.5
12.5°	9174.9	9201.9	9051.1	9083.4	9040.3
15°	8647.3	8674.2	8458.8	8501.9	8410.4
17.5°	8071.2	8168.1	7990.4	8044.2	7947.3
20°	7640.4	7721.2	7726.6	7640.4	7333.5
22.5°	7301.2	7382.0	7446.6	7188.1	7155.8
25°	6988.9	7080.4	7128.9	6956.6	6978.1
27.5°	6676.6	6778.9	6778.9	6816.6	6768.1
30°	6450.5	6493.5	6423.5	6563.5	6520.5
32.5°	6181.2	6197.4	6138.2	6240.5	6089.7
35°	5922.8	5933.6	5922.8	5928.2	5922.8
37.5°	5675.1	5648.2	5696.6	5664.3	5766.6
40°	5400.5	5400.5	5422.0	5475.9	5556.7
42.5°	5147.4	5169.0	5142.1	5292.8	5325.1
45°	4862.1	4899.8	4856.7	5055.9	5007.5
47.5°	4603.6	4619.8	4609.0	4743.6	4754.4
50°	4323.6	4345.2	4355.9	4474.4	4490.6
52.5°	4092.1	4086.7	4049.0	4221.3	4248.3
55°	3817.5	3812.1	3801.4	3936.0	3973.7
57.5°	3537.5	3542.9	3569.8	3645.2	3736.7
60°	3284.5	3257.5	3279.1	3370.6	3446.0
62.5°	3026.0	2977.5	2929.1	3079.9	3149.8
65°	2740.6	2681.4	2654.5	2778.3	2896.8
67.5°	2476.8	2379.9	2363.7	2449.9	2589.9
70°	2175.3	2056.8	2051.4	2116.1	2283.0
72.5°	1841.5	1739.1	1712.2	1798.4	1949.1
75°	1523.8	1410.7	1378.4	1459.2	1599.2
77.5°	1179.2	1087.6	1066.1	1109.2	1222.2
80°	829.2	775.3	753.8	770.0	850.7
82.5°	522.3	484.6	473.8	468.4	511.5
85°	263.8	236.9	236.9	220.8	231.5
87.5°	80.8	75.4	70.0	53.8	59.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)