

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: P486999

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-30-120-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: P486999
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-LD4-3HI-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

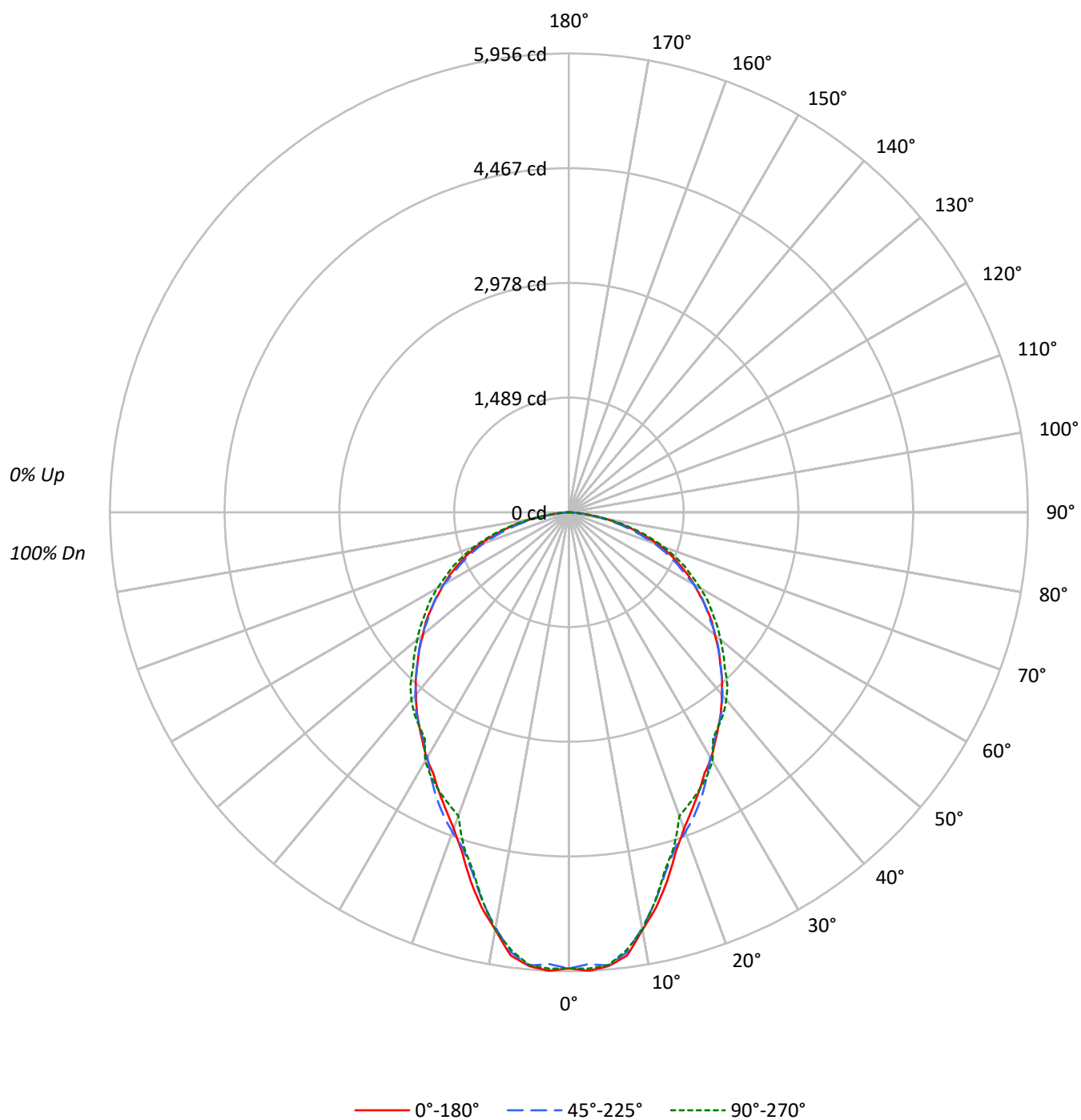
Lumens per Lamp: N/A
Luminaire Lumens: 12658.5 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7964	7964	7964
5°	7986	7974	7965
10°	7515	7481	7511
15°	6886	6736	6697
20°	6254	6324	6003
25°	5931	6050	5922
30°	5729	5705	5791
35°	5561	5561	5561
40°	5422	5444	5579
45°	5289	5283	5447
50°	5174	5212	5373
55°	5119	5098	5329
60°	5053	5044	5301
65°	4988	4831	5272
70°	4892	4613	5134
75°	4528	4096	4753
80°	3673	3339	3768
85°	2328	2090	2044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	549.8	4.3
10°-20°	1374.4	10.9
20°-30°	1856.1	14.7
30°-40°	2125.5	16.8
40°-50°	2177.2	17.2
50°-60°	1975.5	15.6
60°-70°	1541.9	12.2
70°-80°	874.5	6.9
80°-90°	183.6	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°	3780.3	29.9
0°-40°	5905.8	46.7
0°-60°	10058.6	79.5
0°-90°	12658.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12658.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5919	5919	5919	5919	5919	
5°	5913	5845	5904	5916	5898	552
15°	4943	4959	4836	4860	4808	1382
25°	3995	4048	4075	3977	3989	1844
35°	3386	3392	3386	3389	3386	2121
45°	2779	2801	2776	2890	2862	2149
55°	2182	2179	2173	2250	2272	1950
65°	1567	1533	1518	1588	1656	1553
75°	871	806	788	834	914	911
85°	151	135	135	126	132	199
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5919.0	5919.0	5919.0	5919.0	5919.0
2.5°	5955.9	5909.8	5869.8	5934.4	5928.2
5°	5912.9	5845.1	5903.6	5915.9	5897.5
7.5°	5799.0	5755.9	5759.0	5734.3	5731.3
10°	5500.4	5525.0	5475.8	5518.9	5497.3
12.5°	5244.9	5260.3	5174.1	5192.6	5168.0
15°	4943.3	4958.7	4835.6	4860.2	4807.8
17.5°	4613.9	4669.3	4567.8	4598.5	4543.1
20°	4367.7	4413.9	4416.9	4367.7	4192.2
22.5°	4173.8	4219.9	4256.9	4109.1	4090.7
25°	3995.3	4047.6	4075.3	3976.8	3989.1
27.5°	3816.7	3875.2	3875.2	3896.8	3869.1
30°	3687.5	3712.1	3672.1	3752.1	3727.5
32.5°	3533.6	3542.8	3508.9	3567.4	3481.2
35°	3385.8	3392.0	3385.8	3388.9	3385.8
37.5°	3244.2	3228.8	3256.5	3238.1	3296.5
40°	3087.2	3087.2	3099.6	3130.3	3176.5
42.5°	2942.6	2954.9	2939.5	3025.7	3044.2
45°	2779.4	2801.0	2776.4	2890.3	2862.5
47.5°	2631.7	2640.9	2634.8	2711.7	2717.9
50°	2471.6	2484.0	2490.1	2557.8	2567.1
52.5°	2339.3	2336.2	2314.7	2413.2	2428.5
55°	2182.3	2179.2	2173.1	2250.0	2271.6
57.5°	2022.3	2025.3	2040.7	2083.8	2136.1
60°	1877.6	1862.2	1874.5	1926.8	1969.9
62.5°	1729.8	1702.1	1674.4	1760.6	1800.6
65°	1566.7	1532.8	1517.5	1588.3	1656.0
67.5°	1415.9	1360.5	1351.2	1400.5	1480.5
70°	1243.5	1175.8	1172.7	1209.7	1305.1
72.5°	1052.7	994.2	978.8	1028.1	1114.2
75°	871.1	806.4	788.0	834.1	914.2
77.5°	674.1	621.8	609.4	634.1	698.7
80°	474.0	443.2	430.9	440.2	486.3
82.5°	298.6	277.0	270.9	267.8	292.4
85°	150.8	135.4	135.4	126.2	132.4
87.5°	46.2	43.1	40.0	30.8	33.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)