

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: P487003

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-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: P487003
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-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

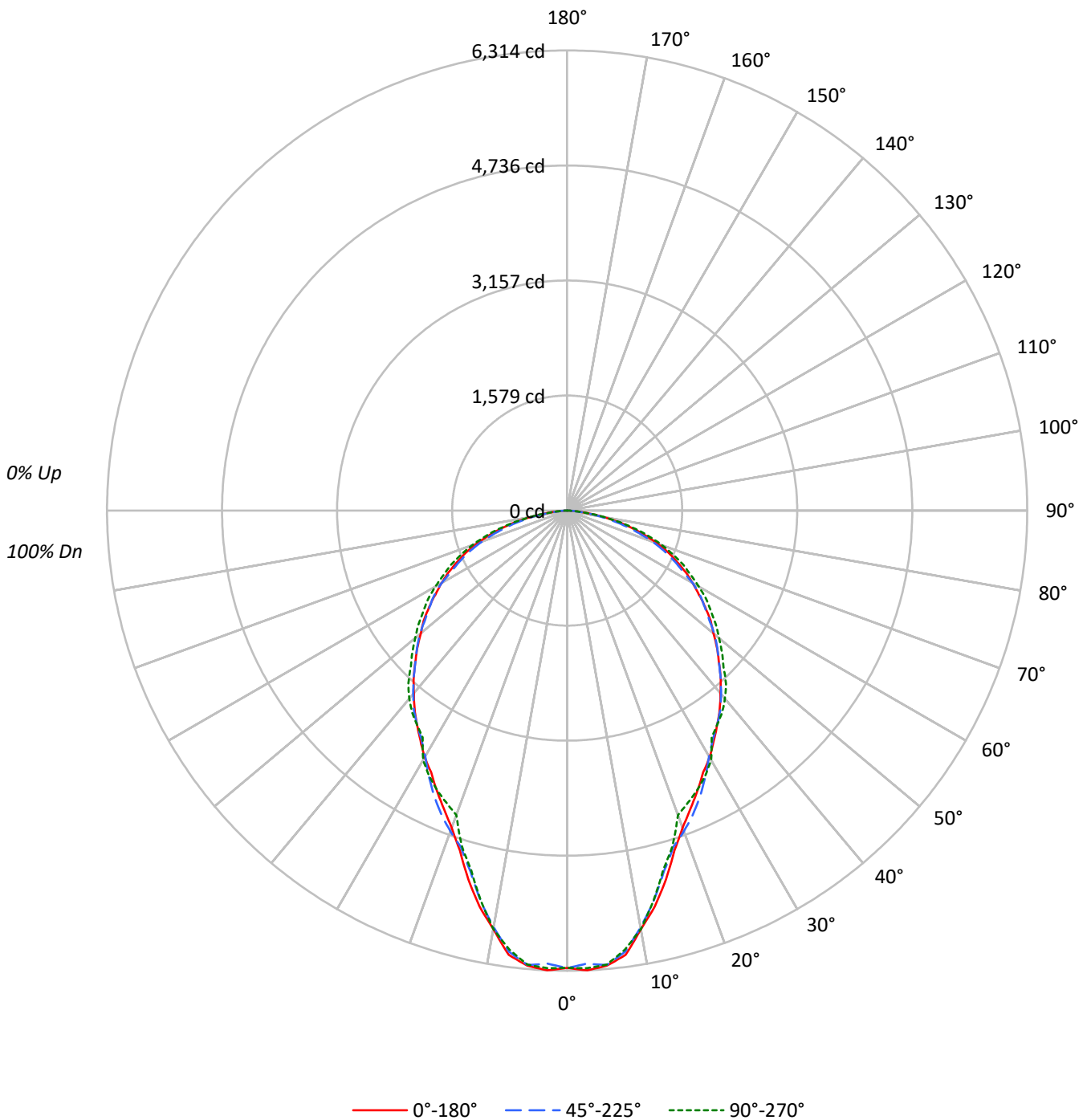
Lumens per Lamp: N/A
Luminaire Lumens: 13419.0 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8442	8442	8442
5°	8466	8453	8444
10°	7966	7931	7962
15°	7299	7140	7099
20°	6630	6704	6363
25°	6288	6414	6278
30°	6073	6048	6139
35°	5895	5895	5895
40°	5748	5771	5914
45°	5606	5600	5774
50°	5484	5525	5696
55°	5427	5404	5649
60°	5356	5347	5620
65°	5287	5121	5589
70°	5186	4891	5443
75°	4800	4342	5038
80°	3894	3539	3994
85°	2468	2217	2166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	582.8	4.3
10°-20°	1457.0	10.9
20°-30°	1967.6	14.7
30°-40°	2253.2	16.8
40°-50°	2308.0	17.2
50°-60°	2094.2	15.6
60°-70°	1634.5	12.2
70°-80°	927.1	6.9
80°-90°	194.6	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°	4007.4	29.9
0°-40°	6260.6	46.7
0°-60°	10662.9	79.5
0°-90°	13419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6275	6275	6275	6275	6275	
5°	6268	6196	6258	6271	6252	585
15°	5240	5257	5126	5152	5097	1465
25°	4235	4291	4320	4216	4229	1954
35°	3589	3596	3589	3592	3589	2248
45°	2946	2969	2943	3064	3034	2278
55°	2313	2310	2304	2385	2408	2067
65°	1661	1625	1609	1684	1756	1646
75°	923	855	835	884	969	966
85°	160	144	144	134	140	211
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6274.6	6274.6	6274.6	6274.6	6274.6
2.5°	6313.8	6264.8	6222.4	6290.9	6284.4
5°	6268.1	6196.3	6258.3	6271.4	6251.8
7.5°	6147.4	6101.7	6104.9	6078.8	6075.6
10°	5830.9	5857.0	5804.8	5850.4	5827.6
12.5°	5560.0	5576.3	5485.0	5504.6	5478.5
15°	5240.3	5256.6	5126.1	5152.2	5096.7
17.5°	4891.1	4949.9	4842.2	4874.8	4816.1
20°	4630.1	4679.0	4682.3	4630.1	4444.1
22.5°	4424.5	4473.5	4512.6	4356.0	4336.4
25°	4235.3	4290.8	4320.1	4215.7	4228.8
27.5°	4046.0	4108.0	4108.0	4130.9	4101.5
30°	3909.0	3935.1	3892.7	3977.5	3951.4
32.5°	3745.8	3755.6	3719.7	3781.7	3690.4
35°	3589.2	3595.7	3589.2	3592.5	3589.2
37.5°	3439.1	3422.8	3452.2	3432.6	3494.6
40°	3272.7	3272.7	3285.8	3318.4	3367.3
42.5°	3119.4	3132.4	3116.1	3207.5	3227.0
45°	2946.4	2969.3	2943.2	3063.9	3034.5
47.5°	2789.8	2799.6	2793.1	2874.6	2881.2
50°	2620.1	2633.2	2639.7	2711.5	2721.3
52.5°	2479.8	2476.6	2453.7	2558.1	2574.5
55°	2313.4	2310.2	2303.6	2385.2	2408.0
57.5°	2143.7	2147.0	2163.3	2209.0	2264.5
60°	1990.4	1974.1	1987.1	2042.6	2088.3
62.5°	1833.8	1804.4	1775.0	1866.4	1908.8
65°	1660.8	1624.9	1608.6	1683.7	1755.5
67.5°	1500.9	1442.2	1432.4	1484.6	1569.5
70°	1318.2	1246.4	1243.2	1282.3	1383.5
72.5°	1115.9	1053.9	1037.6	1089.8	1181.2
75°	923.4	854.9	835.3	884.3	969.1
77.5°	714.6	659.1	646.1	672.2	740.7
80°	502.5	469.9	456.8	466.6	515.5
82.5°	316.5	293.7	287.1	283.9	310.0
85°	159.9	143.6	143.6	133.8	140.3
87.5°	48.9	45.7	42.4	32.6	35.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)