

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: P487125

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-50-120-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: P487125
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-LD4-6LO-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

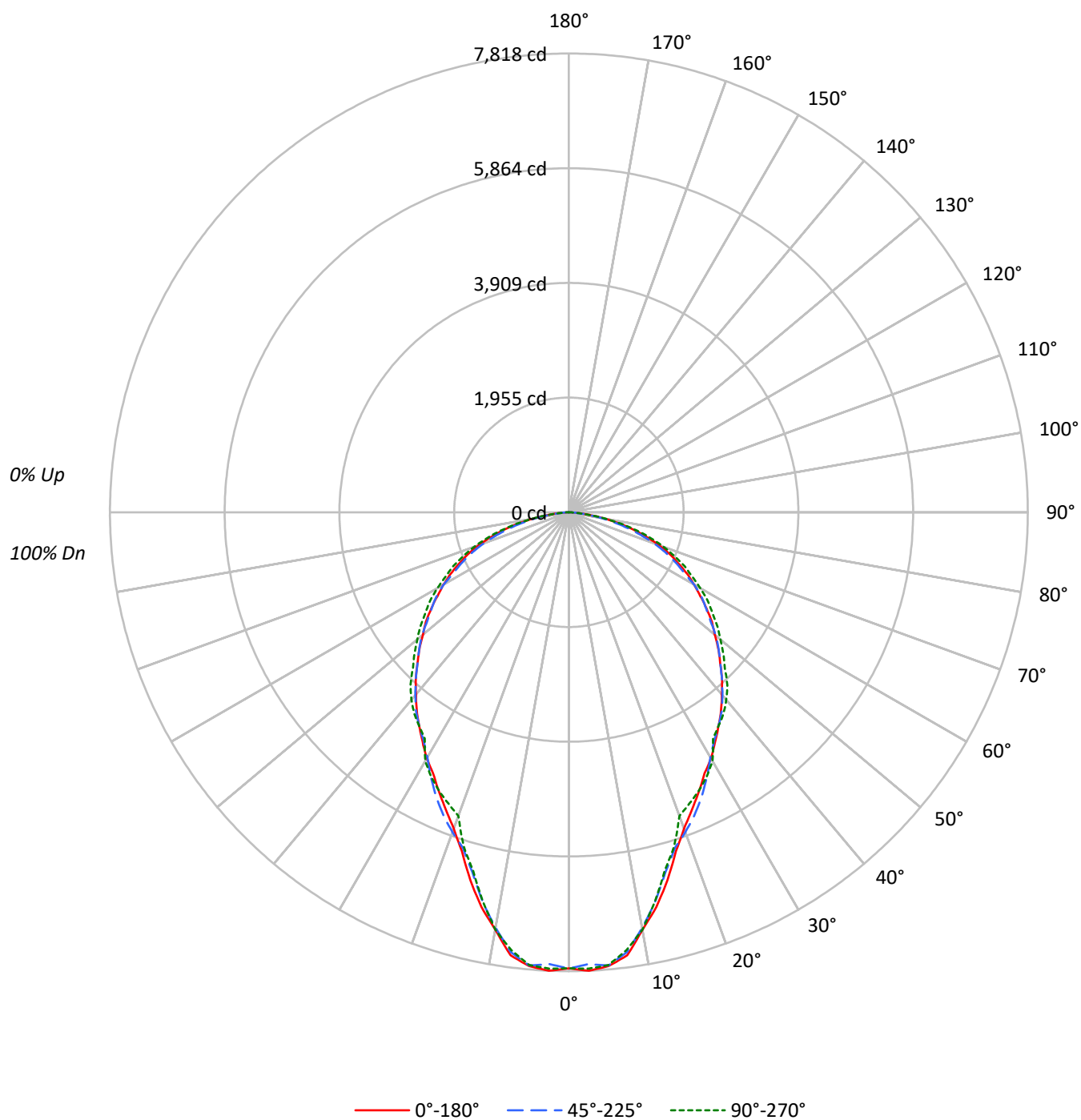
Lumens per Lamp: N/A
Luminaire Lumens: 16616.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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°	10454	10454	10454
5°	10483	10466	10455
10°	9864	9820	9859
15°	9038	8841	8791
20°	8209	8302	7879
25°	7786	7942	7774
30°	7520	7489	7602
35°	7300	7300	7300
40°	7118	7146	7324
45°	6942	6935	7150
50°	6791	6842	7053
55°	6720	6691	6994
60°	6632	6621	6958
65°	6547	6342	6920
70°	6421	6056	6739
75°	5944	5377	6238
80°	4821	4382	4947
85°	3057	2745	2682



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	721.6	4.3
10°-20°	1804.1	10.9
20°-30°	2436.4	14.7
30°-40°	2790.0	16.8
40°-50°	2857.9	17.2
50°-60°	2593.2	15.6
60°-70°	2023.9	12.2
70°-80°	1147.9	6.9
80°-90°	240.9	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°	4962.1	29.9
0°-40°	7752.2	46.7
0°-60°	13203.2	79.5
0°-90°	16616.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16616.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7770	7770	7770	7770	7770	
5°	7761	7672	7749	7766	7741	725
15°	6489	6509	6347	6380	6311	1813
25°	5244	5313	5349	5220	5236	2420
35°	4444	4452	4444	4448	4444	2784
45°	3648	3677	3644	3794	3758	2821
55°	2865	2860	2852	2954	2982	2560
65°	2056	2012	1992	2085	2174	2038
75°	1143	1059	1034	1095	1200	1196
85°	198	178	178	166	174	261
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7769.5	7769.5	7769.5	7769.5	7769.5
2.5°	7818.0	7757.4	7704.9	7789.7	7781.6
5°	7761.4	7672.5	7749.3	7765.5	7741.2
7.5°	7611.9	7555.4	7559.4	7527.1	7523.0
10°	7220.0	7252.3	7187.7	7244.3	7216.0
12.5°	6884.7	6904.9	6791.8	6816.0	6783.7
15°	6488.7	6508.9	6347.3	6379.6	6311.0
17.5°	6056.4	6129.1	5995.8	6036.2	5963.5
20°	5733.2	5793.8	5797.8	5733.2	5502.9
22.5°	5478.7	5539.3	5587.7	5393.8	5369.6
25°	5244.3	5313.0	5349.4	5220.1	5236.2
27.5°	5010.0	5086.7	5086.7	5115.0	5078.7
30°	4840.3	4872.6	4820.1	4925.1	4892.8
32.5°	4638.3	4650.4	4605.9	4682.7	4569.6
35°	4444.3	4452.4	4444.3	4448.4	4444.3
37.5°	4258.5	4238.3	4274.6	4250.4	4327.2
40°	4052.4	4052.4	4068.6	4109.0	4169.6
42.5°	3862.5	3878.7	3858.5	3971.6	3995.9
45°	3648.4	3676.7	3644.4	3793.8	3757.5
47.5°	3454.5	3466.6	3458.5	3559.5	3567.6
50°	3244.4	3260.5	3268.6	3357.5	3369.6
52.5°	3070.6	3066.6	3038.3	3167.6	3187.8
55°	2864.6	2860.5	2852.5	2953.5	2981.7
57.5°	2654.5	2658.5	2678.7	2735.3	2804.0
60°	2464.6	2444.4	2460.5	2529.2	2585.8
62.5°	2270.7	2234.3	2197.9	2311.1	2363.6
65°	2056.5	2012.1	1991.9	2084.8	2173.7
67.5°	1858.5	1785.8	1773.7	1838.3	1943.4
70°	1632.3	1543.4	1539.4	1587.8	1713.1
72.5°	1381.8	1305.0	1284.8	1349.5	1462.6
75°	1143.4	1058.6	1034.3	1094.9	1200.0
77.5°	884.8	816.1	800.0	832.3	917.1
80°	622.2	581.8	565.6	577.8	638.4
82.5°	391.9	363.6	355.5	351.5	383.8
85°	198.0	177.8	177.8	165.7	173.7
87.5°	60.6	56.6	52.5	40.4	44.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)