

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: P487083

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5LO-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: P487083
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-LD4-5LO-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

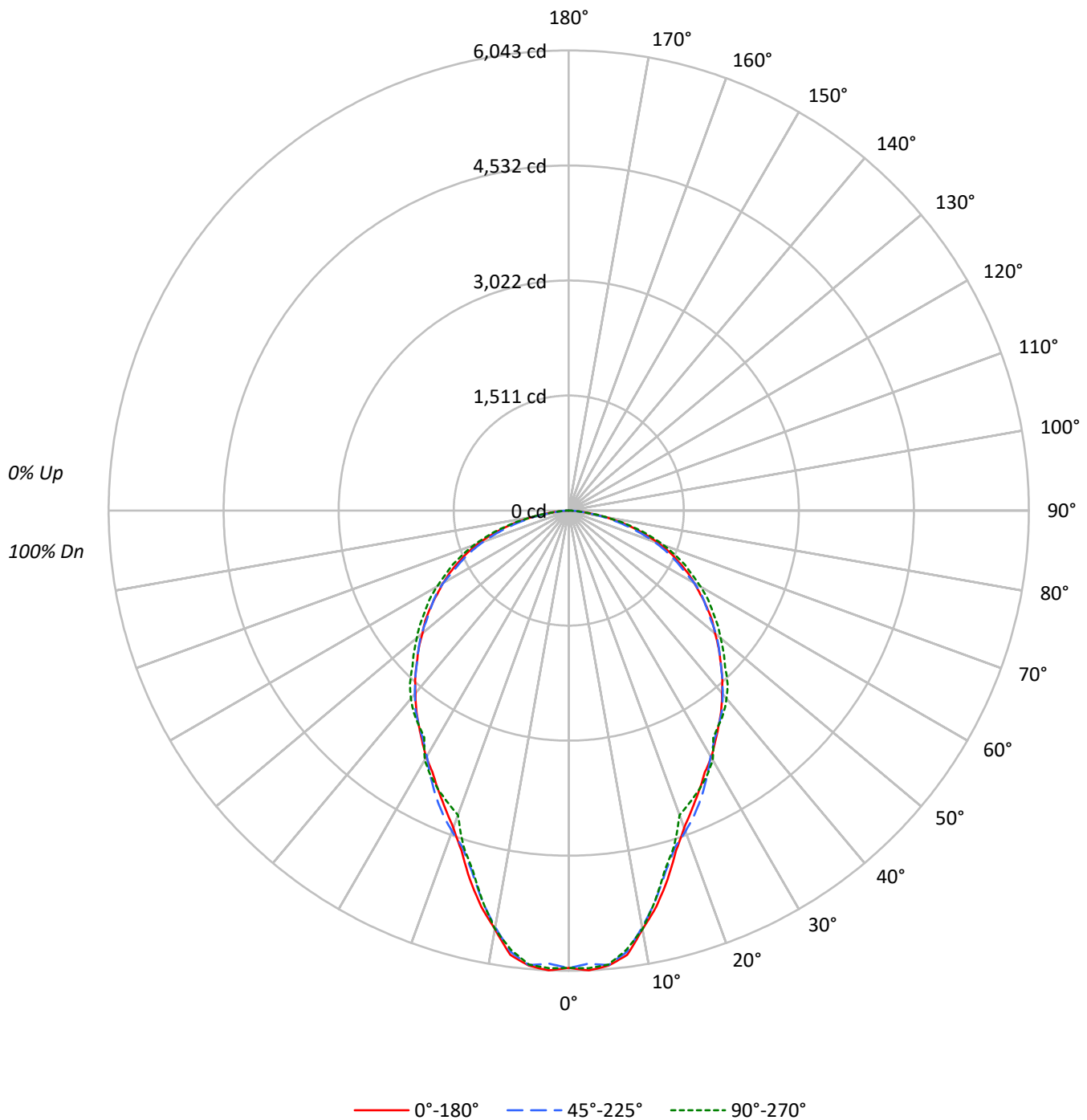
Lumens per Lamp: N/A
Luminaire Lumens: 12844.1 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 117
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°	8081	8081	8081
5°	8103	8091	8082
10°	7625	7591	7621
15°	6987	6835	6795
20°	6345	6417	6091
25°	6018	6139	6009
30°	5813	5789	5876
35°	5643	5643	5643
40°	5502	5524	5661
45°	5366	5360	5527
50°	5250	5289	5452
55°	5194	5172	5407
60°	5127	5118	5379
65°	5061	4902	5349
70°	4963	4681	5209
75°	4594	4156	4822
80°	3727	3388	3824
85°	2362	2121	2073



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	557.8	4.3
10°-20°	1394.6	10.9
20°-30°	1883.3	14.7
30°-40°	2156.7	16.8
40°-50°	2209.1	17.2
50°-60°	2004.5	15.6
60°-70°	1564.5	12.2
70°-80°	887.3	6.9
80°-90°	186.2	1.4
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°	3835.7	29.9
0°-40°	5992.4	46.7
0°-60°	10206.0	79.5
0°-90°	12844.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12844.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6006	6006	6006	6006	6006	
5°	6000	5931	5990	6003	5984	560
15°	5016	5031	4906	4931	4878	1402
25°	4054	4107	4135	4035	4048	1871
35°	3436	3442	3436	3439	3436	2152
45°	2820	2842	2817	2933	2904	2180
55°	2214	2211	2205	2283	2305	1979
65°	1590	1555	1540	1612	1680	1575
75°	884	818	800	846	928	925
85°	153	137	137	128	134	202
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6005.8	6005.8	6005.8	6005.8	6005.8
2.5°	6043.3	5996.4	5955.8	6021.4	6015.2
5°	5999.5	5930.8	5990.2	6002.7	5983.9
7.5°	5884.0	5840.3	5843.4	5818.4	5815.3
10°	5581.0	5606.0	5556.1	5599.8	5577.9
12.5°	5321.8	5337.4	5250.0	5268.7	5243.7
15°	5015.8	5031.4	4906.5	4931.4	4878.3
17.5°	4681.6	4737.8	4634.7	4666.0	4609.8
20°	4431.7	4478.6	4481.7	4431.7	4253.7
22.5°	4235.0	4281.8	4319.3	4169.4	4150.7
25°	4053.8	4106.9	4135.0	4035.1	4047.6
27.5°	3872.7	3932.0	3932.0	3953.9	3925.8
30°	3741.5	3766.5	3725.9	3807.1	3782.1
32.5°	3585.4	3594.7	3560.4	3619.7	3532.3
35°	3435.5	3441.7	3435.5	3438.6	3435.5
37.5°	3291.8	3276.2	3304.3	3285.5	3344.9
40°	3132.5	3132.5	3145.0	3176.2	3223.1
42.5°	2985.7	2998.2	2982.6	3070.0	3088.8
45°	2820.2	2842.1	2817.1	2932.6	2904.5
47.5°	2670.3	2679.7	2673.4	2751.5	2757.7
50°	2507.9	2520.4	2526.6	2595.3	2604.7
52.5°	2373.6	2370.5	2348.6	2448.5	2464.2
55°	2214.3	2211.2	2204.9	2283.0	2304.9
57.5°	2051.9	2055.0	2070.6	2114.4	2167.5
60°	1905.1	1889.5	1902.0	1955.1	1998.8
62.5°	1755.2	1727.1	1699.0	1786.4	1827.0
65°	1589.7	1555.3	1539.7	1611.5	1680.2
67.5°	1436.6	1380.4	1371.1	1421.0	1502.2
70°	1261.7	1193.0	1189.9	1227.4	1324.2
72.5°	1068.1	1008.8	993.2	1043.1	1130.6
75°	883.8	818.3	799.5	846.4	927.6
77.5°	684.0	630.9	618.4	643.4	709.0
80°	481.0	449.7	437.2	446.6	493.5
82.5°	302.9	281.1	274.8	271.7	296.7
85°	153.0	137.4	137.4	128.0	134.3
87.5°	46.8	43.7	40.6	31.2	34.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)