

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: P487117

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-27-120-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: P487117
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-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

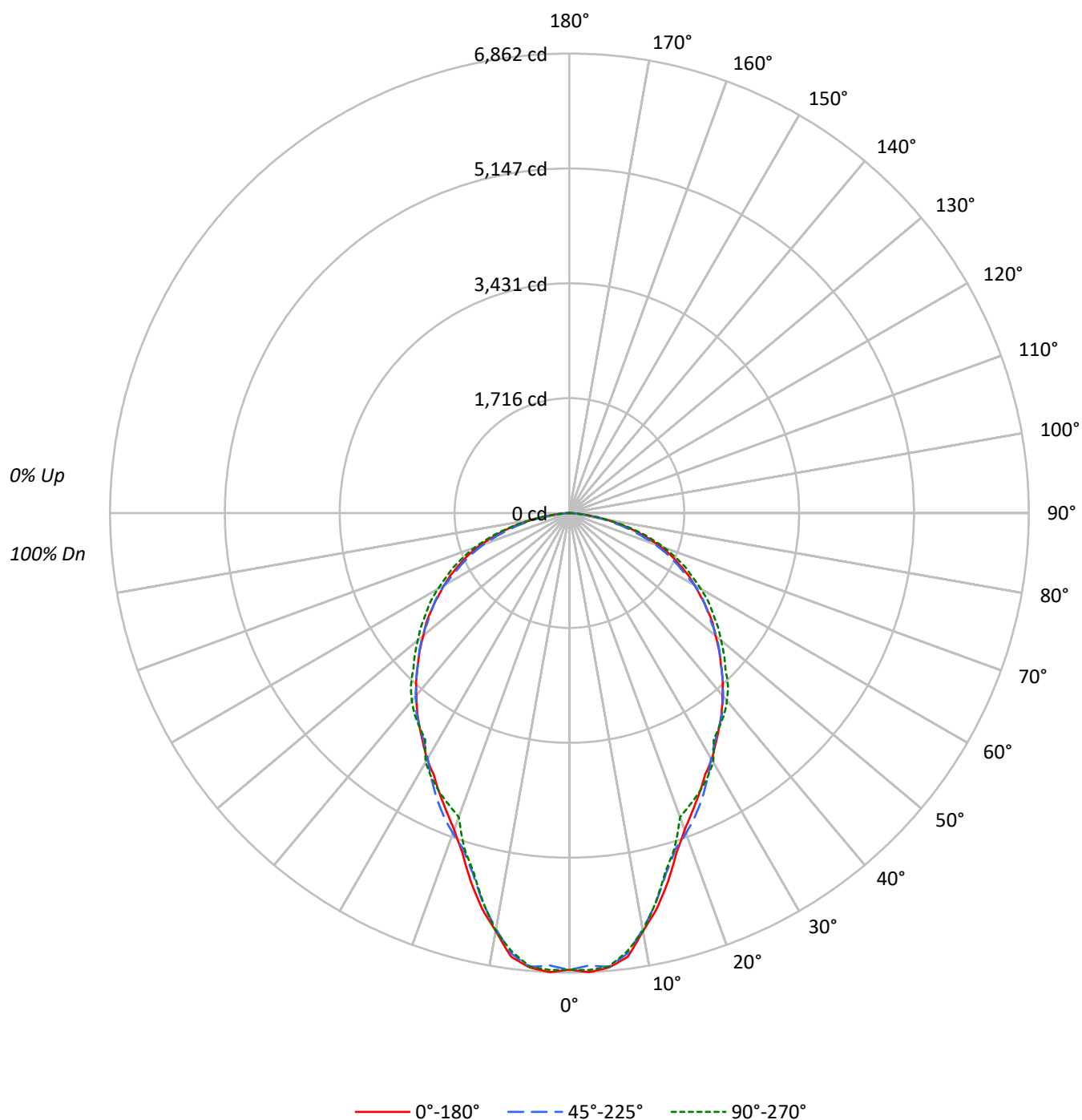
Lumens per Lamp: N/A
Luminaire Lumens: 14583.7 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-6LO-27-120-EDD

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°	9175	9175	9175
5°	9201	9186	9177
10°	8658	8619	8653
15°	7933	7760	7716
20°	7205	7286	6916
25°	6833	6970	6823
30°	6600	6573	6672
35°	6407	6407	6407
40°	6247	6272	6428
45°	6093	6086	6275
50°	5960	6005	6191
55°	5898	5873	6139
60°	5821	5811	6107
65°	5747	5566	6074
70°	5636	5315	5915
75°	5217	4719	5475
80°	4231	3847	4341
85°	2683	2408	2354



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	633.4	4.3
10°-20°	1583.4	10.9
20°-30°	2138.4	14.7
30°-40°	2448.8	16.8
40°-50°	2508.3	17.2
50°-60°	2276.0	15.6
60°-70°	1776.4	12.2
70°-80°	1007.5	6.9
80°-90°	211.5	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°	4355.2	29.9
0°-40°	6804.0	46.7
0°-60°	11588.3	79.5
0°-90°	14583.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14583.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6819	6819	6819	6819	6819	
5°	6812	6734	6802	6816	6794	636
15°	5695	5713	5571	5599	5539	1592
25°	4603	4663	4695	4582	4596	2124
35°	3901	3908	3901	3904	3901	2443
45°	3202	3227	3199	3330	3298	2476
55°	2514	2511	2504	2592	2617	2247
65°	1805	1766	1748	1830	1908	1789
75°	1004	929	908	961	1053	1050
85°	174	156	156	145	152	229
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6819.2	6819.2	6819.2	6819.2	6819.2
2.5°	6861.8	6808.6	6762.5	6836.9	6829.9
5°	6812.1	6734.1	6801.5	6815.7	6794.4
7.5°	6680.9	6631.3	6634.8	6606.4	6602.9
10°	6336.9	6365.3	6308.6	6358.2	6333.4
12.5°	6042.6	6060.3	5961.1	5982.3	5954.0
15°	5695.1	5712.8	5571.0	5599.3	5539.1
17.5°	5315.7	5379.5	5262.5	5297.9	5234.1
20°	5032.0	5085.2	5088.7	5032.0	4829.8
22.5°	4808.6	4861.8	4904.3	4734.1	4712.8
25°	4602.9	4663.2	4695.1	4581.6	4595.8
27.5°	4397.2	4464.6	4464.6	4489.4	4457.5
30°	4248.3	4276.6	4230.5	4322.7	4294.4
32.5°	4071.0	4081.6	4042.6	4110.0	4010.7
35°	3900.7	3907.8	3900.7	3904.3	3900.7
37.5°	3737.6	3719.9	3751.8	3730.5	3797.9
40°	3556.8	3556.8	3571.0	3606.4	3659.6
42.5°	3390.1	3404.3	3386.6	3485.9	3507.1
45°	3202.2	3227.0	3198.6	3329.8	3297.9
47.5°	3031.9	3042.6	3035.5	3124.1	3131.2
50°	2847.5	2861.7	2868.8	2946.8	2957.5
52.5°	2695.1	2691.5	2666.7	2780.2	2797.9
55°	2514.2	2510.7	2503.6	2592.2	2617.0
57.5°	2329.8	2333.4	2351.1	2400.7	2461.0
60°	2163.1	2145.4	2159.6	2219.9	2269.5
62.5°	1992.9	1961.0	1929.1	2028.4	2074.5
65°	1805.0	1766.0	1748.2	1829.8	1907.8
67.5°	1631.2	1567.4	1556.8	1613.5	1705.7
70°	1432.6	1354.6	1351.1	1393.6	1503.6
72.5°	1212.8	1145.4	1127.7	1184.4	1283.7
75°	1003.6	929.1	907.8	961.0	1053.2
77.5°	776.6	716.3	702.1	730.5	805.0
80°	546.1	510.6	496.5	507.1	560.3
82.5°	344.0	319.2	312.1	308.5	336.9
85°	173.8	156.0	156.0	145.4	152.5
87.5°	53.2	49.6	46.1	35.5	39.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)