

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: P487057

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-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: P487057
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-LD4-4STD-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

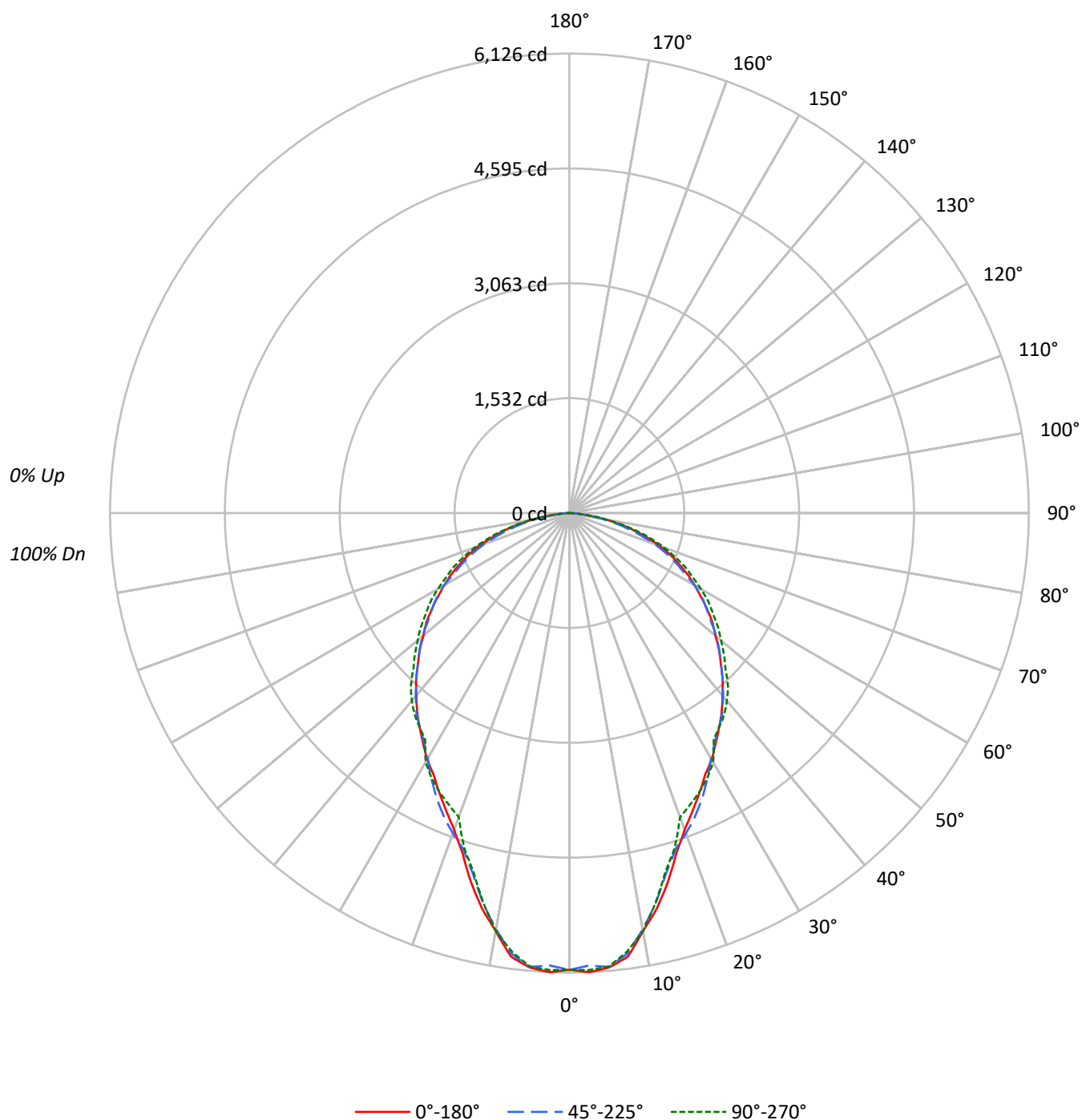
Lumens per Lamp: N/A
Luminaire Lumens: 13020.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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°	8191	8191	8191
5°	8214	8201	8193
10°	7730	7695	7725
15°	7082	6928	6888
20°	6432	6505	6174
25°	6101	6223	6091
30°	5893	5868	5956
35°	5720	5720	5720
40°	5577	5600	5739
45°	5440	5434	5602
50°	5321	5361	5527
55°	5265	5243	5481
60°	5197	5188	5452
65°	5130	4969	5423
70°	5032	4745	5281
75°	4658	4213	4888
80°	3778	3434	3876
85°	2394	2150	2101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	565.5	4.3
10°-20°	1413.7	10.9
20°-30°	1909.1	14.7
30°-40°	2186.2	16.8
40°-50°	2239.4	17.2
50°-60°	2032.0	15.6
60°-70°	1585.9	12.2
70°-80°	899.5	6.9
80°-90°	188.8	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°	3888.2	29.9
0°-40°	6074.5	46.7
0°-60°	10345.8	79.5
0°-90°	13020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6088	6088	6088	6088	6088	
5°	6082	6012	6072	6085	6066	568
15°	5084	5100	4974	4999	4945	1421
25°	4109	4163	4192	4090	4103	1896
35°	3482	3489	3482	3486	3482	2182
45°	2859	2881	2856	2973	2944	2210
55°	2245	2242	2235	2314	2336	2006
65°	1611	1577	1561	1634	1703	1597
75°	896	830	810	858	940	937
85°	155	139	139	130	136	205
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6088.0	6088.0	6088.0	6088.0	6088.0
2.5°	6126.0	6078.5	6037.4	6103.9	6097.5
5°	6081.7	6012.1	6072.2	6084.9	6065.9
7.5°	5964.6	5920.3	5923.4	5898.1	5894.9
10°	5657.5	5682.8	5632.2	5676.5	5654.3
12.5°	5394.7	5410.5	5321.9	5340.9	5315.6
15°	5084.5	5100.3	4973.6	4999.0	4945.2
17.5°	4745.7	4802.7	4698.2	4729.9	4672.9
20°	4492.4	4539.9	4543.1	4492.4	4312.0
22.5°	4293.0	4340.5	4378.5	4226.5	4207.5
25°	4109.4	4163.2	4191.7	4090.4	4103.0
27.5°	3925.7	3985.9	3985.9	4008.0	3979.5
30°	3792.8	3818.1	3776.9	3859.2	3833.9
32.5°	3634.5	3644.0	3609.1	3669.3	3580.6
35°	3482.5	3488.8	3482.5	3485.7	3482.5
37.5°	3336.9	3321.0	3349.5	3330.5	3390.7
40°	3175.4	3175.4	3188.1	3219.7	3267.2
42.5°	3026.6	3039.3	3023.4	3112.1	3131.1
45°	2858.8	2881.0	2855.7	2972.8	2944.3
47.5°	2706.9	2716.4	2710.0	2789.2	2795.5
50°	2542.2	2554.9	2561.2	2630.9	2640.4
52.5°	2406.1	2402.9	2380.8	2482.1	2497.9
55°	2244.6	2241.5	2235.1	2314.3	2336.4
57.5°	2080.0	2083.2	2099.0	2143.3	2197.1
60°	1931.2	1915.4	1928.0	1981.9	2026.2
62.5°	1779.2	1750.7	1722.3	1810.9	1852.1
65°	1611.4	1576.6	1560.8	1633.6	1703.3
67.5°	1456.3	1399.3	1389.8	1440.5	1522.8
70°	1279.0	1209.4	1206.2	1244.2	1342.3
72.5°	1082.7	1022.6	1006.8	1057.4	1146.1
75°	896.0	829.5	810.5	858.0	940.3
77.5°	693.3	639.5	626.9	652.2	718.7
80°	487.6	455.9	443.2	452.7	500.2
82.5°	307.1	284.9	278.6	275.4	300.8
85°	155.1	139.3	139.3	129.8	136.1
87.5°	47.5	44.3	41.2	31.7	34.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)