

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: P487095

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5STD-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: P487095
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-LD4-5STD-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

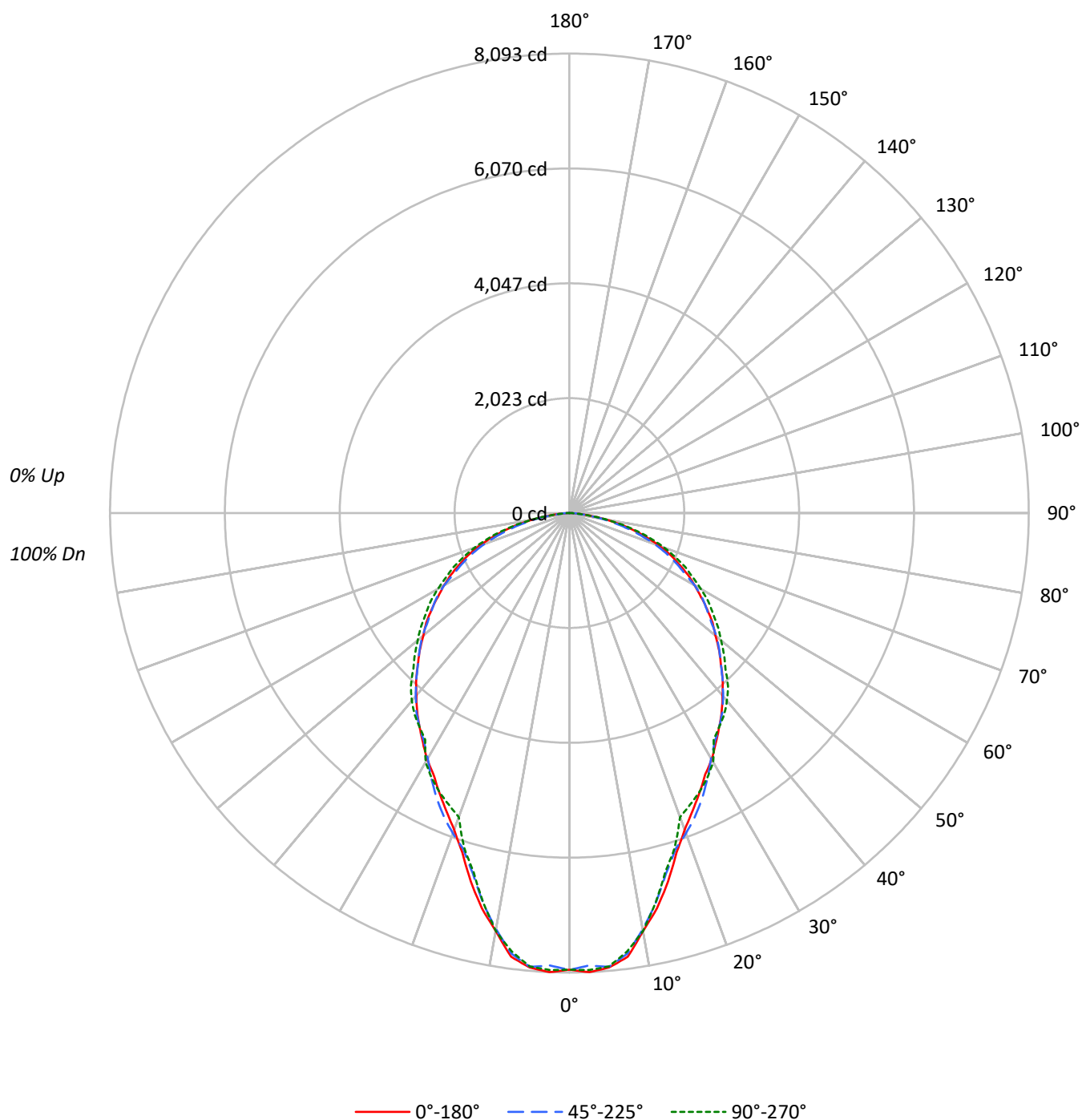
Lumens per Lamp: N/A
Luminaire Lumens: 17200.3 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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°	10821	10821	10821
5°	10851	10834	10823
10°	10211	10166	10205
15°	9356	9152	9100
20°	8498	8593	8156
25°	8059	8221	8047
30°	7784	7752	7869
35°	7557	7557	7557
40°	7368	7397	7581
45°	7186	7178	7401
50°	7030	7082	7301
55°	6956	6927	7241
60°	6865	6854	7203
65°	6777	6564	7164
70°	6647	6269	6976
75°	6153	5566	6458
80°	4991	4537	5120
85°	3163	2841	2776



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	747.0	4.3
10°-20°	1867.5	10.9
20°-30°	2522.1	14.7
30°-40°	2888.2	16.8
40°-50°	2958.4	17.2
50°-60°	2684.4	15.6
60°-70°	2095.1	12.2
70°-80°	1188.3	6.9
80°-90°	249.4	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°	5136.6	29.9
0°-40°	8024.8	46.7
0°-60°	13667.5	79.5
0°-90°	17200.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17200.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8043	8043	8043	8043	8043	
5°	8034	7942	8022	8038	8013	750
15°	6717	6738	6570	6604	6533	1877
25°	5429	5500	5538	5404	5420	2505
35°	4601	4609	4601	4605	4601	2882
45°	3777	3806	3772	3927	3890	2920
55°	2965	2961	2953	3057	3087	2650
65°	2129	2083	2062	2158	2250	2110
75°	1184	1096	1071	1133	1242	1238
85°	205	184	184	172	180	271
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8042.7	8042.7	8042.7	8042.7	8042.7
2.5°	8092.9	8030.2	7975.8	8063.6	8055.3
5°	8034.4	7942.3	8021.8	8038.5	8013.4
7.5°	7879.6	7821.1	7825.2	7791.8	7787.6
10°	7473.9	7507.4	7440.5	7499.0	7469.7
12.5°	7126.8	7147.7	7030.6	7055.7	7022.2
15°	6716.9	6737.8	6570.5	6604.0	6532.9
17.5°	6269.4	6344.7	6206.7	6248.5	6173.2
20°	5934.8	5997.5	6001.7	5934.8	5696.4
22.5°	5671.3	5734.0	5784.2	5583.5	5558.4
25°	5428.7	5499.8	5537.5	5403.6	5420.4
27.5°	5186.2	5265.6	5265.6	5294.9	5257.3
30°	5010.5	5044.0	4989.6	5098.3	5064.9
32.5°	4801.4	4813.9	4767.9	4847.4	4730.3
35°	4600.6	4609.0	4600.6	4604.8	4600.6
37.5°	4408.2	4387.3	4425.0	4399.9	4479.3
40°	4194.9	4194.9	4211.7	4253.5	4316.2
42.5°	3998.4	4015.1	3994.2	4111.3	4136.4
45°	3776.7	3806.0	3772.5	3927.3	3889.6
47.5°	3575.9	3588.5	3580.1	3684.7	3693.0
50°	3358.5	3375.2	3383.5	3475.6	3488.1
52.5°	3178.6	3174.4	3145.2	3279.0	3299.9
55°	2965.3	2961.1	2952.8	3057.3	3086.6
57.5°	2747.8	2752.0	2772.9	2831.5	2902.6
60°	2551.3	2530.3	2547.1	2618.2	2676.7
62.5°	2350.5	2312.9	2275.2	2392.3	2446.7
65°	2128.8	2082.8	2061.9	2158.1	2250.1
67.5°	1923.9	1848.6	1836.1	1903.0	2011.7
70°	1689.7	1597.7	1593.5	1643.7	1773.3
72.5°	1430.4	1350.9	1330.0	1396.9	1514.0
75°	1183.6	1095.8	1070.7	1133.4	1242.2
77.5°	915.9	844.8	828.1	861.6	949.4
80°	644.1	602.3	585.5	598.1	660.8
82.5°	405.7	376.4	368.0	363.9	397.3
85°	204.9	184.0	184.0	171.5	179.8
87.5°	62.7	58.6	54.4	41.8	46.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)