

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: P487127

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6STD-20-120-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: P487127
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-LD4-6STD-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

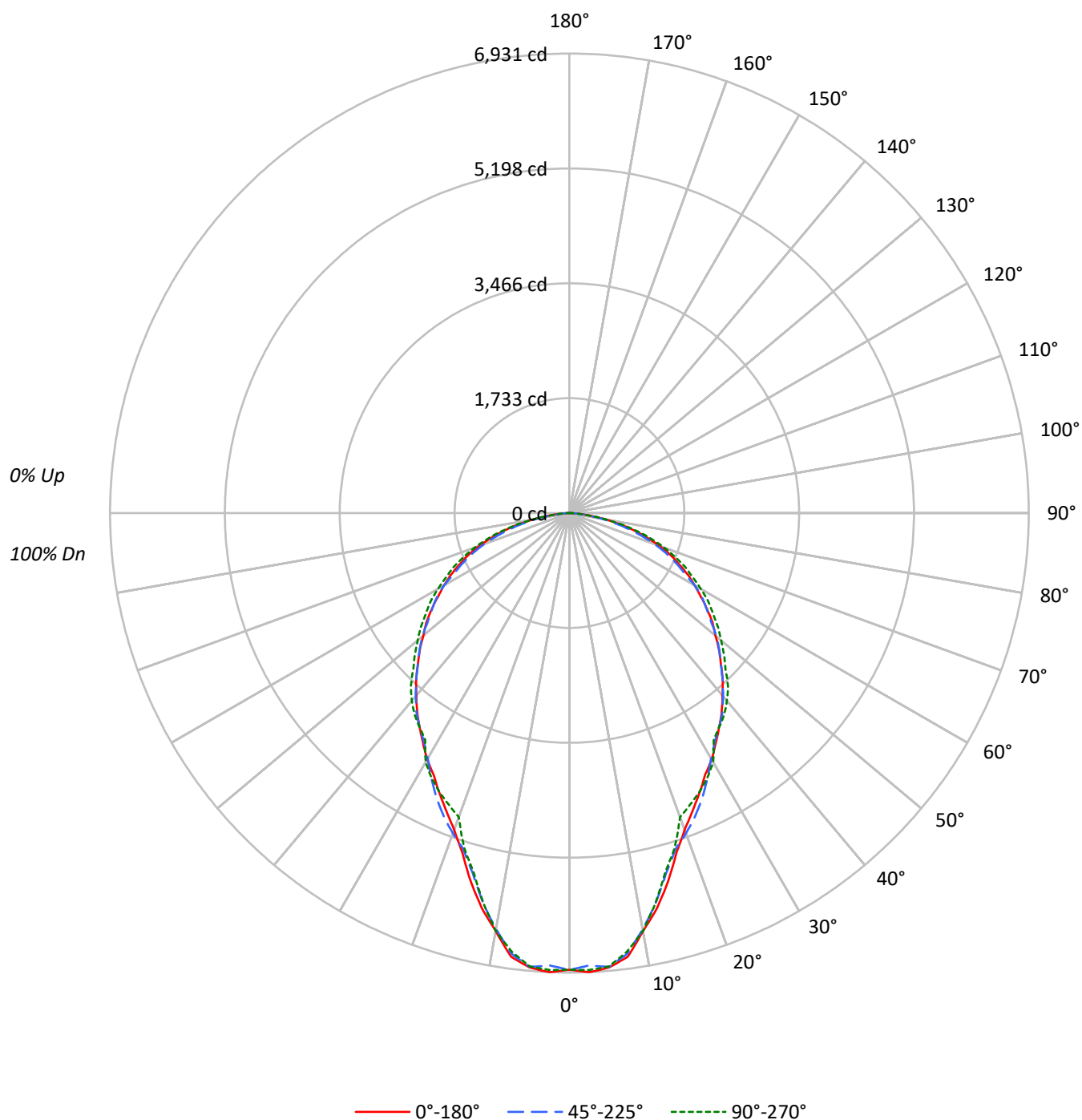
Lumens per Lamp: N/A
Luminaire Lumens: 14731.3 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 199.8
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°	9268	9268	9268
5°	9294	9279	9270
10°	8745	8706	8741
15°	8013	7839	7794
20°	7278	7360	6986
25°	6903	7041	6892
30°	6667	6639	6739
35°	6472	6472	6472
40°	6310	6336	6493
45°	6155	6148	6339
50°	6021	6066	6253
55°	5958	5932	6201
60°	5880	5870	6169
65°	5805	5622	6135
70°	5693	5369	5975
75°	5270	4767	5531
80°	4274	3886	4386
85°	2709	2433	2377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	639.8	4.3
10°-20°	1599.5	10.9
20°-30°	2160.1	14.7
30°-40°	2473.6	16.8
40°-50°	2533.7	17.2
50°-60°	2299.0	15.6
60°-70°	1794.3	12.2
70°-80°	1017.7	6.9
80°-90°	213.6	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°	4399.3	29.9
0°-40°	6872.9	46.7
0°-60°	11705.6	79.5
0°-90°	14731.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14731.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6888	6888	6888	6888	6888	
5°	6881	6802	6870	6885	6863	643
15°	5753	5771	5627	5656	5595	1608
25°	4650	4710	4743	4628	4642	2145
35°	3940	3947	3940	3944	3940	2468
45°	3235	3260	3231	3364	3331	2501
55°	2540	2536	2529	2618	2644	2270
65°	1823	1784	1766	1848	1927	1807
75°	1014	938	917	971	1064	1060
85°	176	158	158	147	154	232
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6888.2	6888.2	6888.2	6888.2	6888.2
2.5°	6931.2	6877.5	6830.9	6906.1	6899.0
5°	6881.1	6802.3	6870.3	6884.7	6863.2
7.5°	6748.5	6698.4	6702.0	6673.3	6669.7
10°	6401.1	6429.7	6372.4	6422.6	6397.5
12.5°	6103.8	6121.7	6021.4	6042.9	6014.2
15°	5752.7	5770.6	5627.4	5656.0	5595.1
17.5°	5369.5	5433.9	5315.7	5351.5	5287.1
20°	5082.9	5136.6	5140.2	5082.9	4878.7
22.5°	4857.2	4911.0	4953.9	4782.0	4760.5
25°	4649.5	4710.4	4742.6	4628.0	4642.3
27.5°	4441.7	4509.8	4509.8	4534.8	4502.6
30°	4291.3	4319.9	4273.4	4366.5	4337.8
32.5°	4112.2	4122.9	4083.5	4151.6	4051.3
35°	3940.2	3947.4	3940.2	3943.8	3940.2
37.5°	3775.5	3757.5	3789.8	3768.3	3836.3
40°	3592.8	3592.8	3607.1	3642.9	3696.7
42.5°	3424.4	3438.7	3420.8	3521.1	3542.6
45°	3234.6	3259.6	3231.0	3363.5	3331.3
47.5°	3062.6	3073.4	3066.2	3155.8	3162.9
50°	2876.4	2890.7	2897.9	2976.7	2987.4
52.5°	2722.3	2718.8	2693.7	2808.3	2826.2
55°	2539.7	2536.1	2528.9	2618.5	2643.5
57.5°	2353.4	2357.0	2374.9	2425.0	2485.9
60°	2185.0	2167.1	2181.5	2242.3	2292.5
62.5°	2013.1	1980.9	1948.6	2048.9	2095.5
65°	1823.3	1783.8	1765.9	1848.3	1927.1
67.5°	1647.7	1583.3	1572.5	1629.8	1723.0
70°	1447.1	1368.3	1364.8	1407.7	1518.8
72.5°	1225.1	1157.0	1139.1	1196.4	1296.7
75°	1013.7	938.5	917.0	970.7	1063.9
77.5°	784.5	723.6	709.2	737.9	813.1
80°	551.6	515.8	501.5	512.2	566.0
82.5°	347.5	322.4	315.2	311.6	340.3
85°	175.5	157.6	157.6	146.9	154.0
87.5°	53.7	50.1	46.6	35.8	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)