

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: P486938

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1LO-30-120-EDD-90**

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: P486938
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-LD4-1LO-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

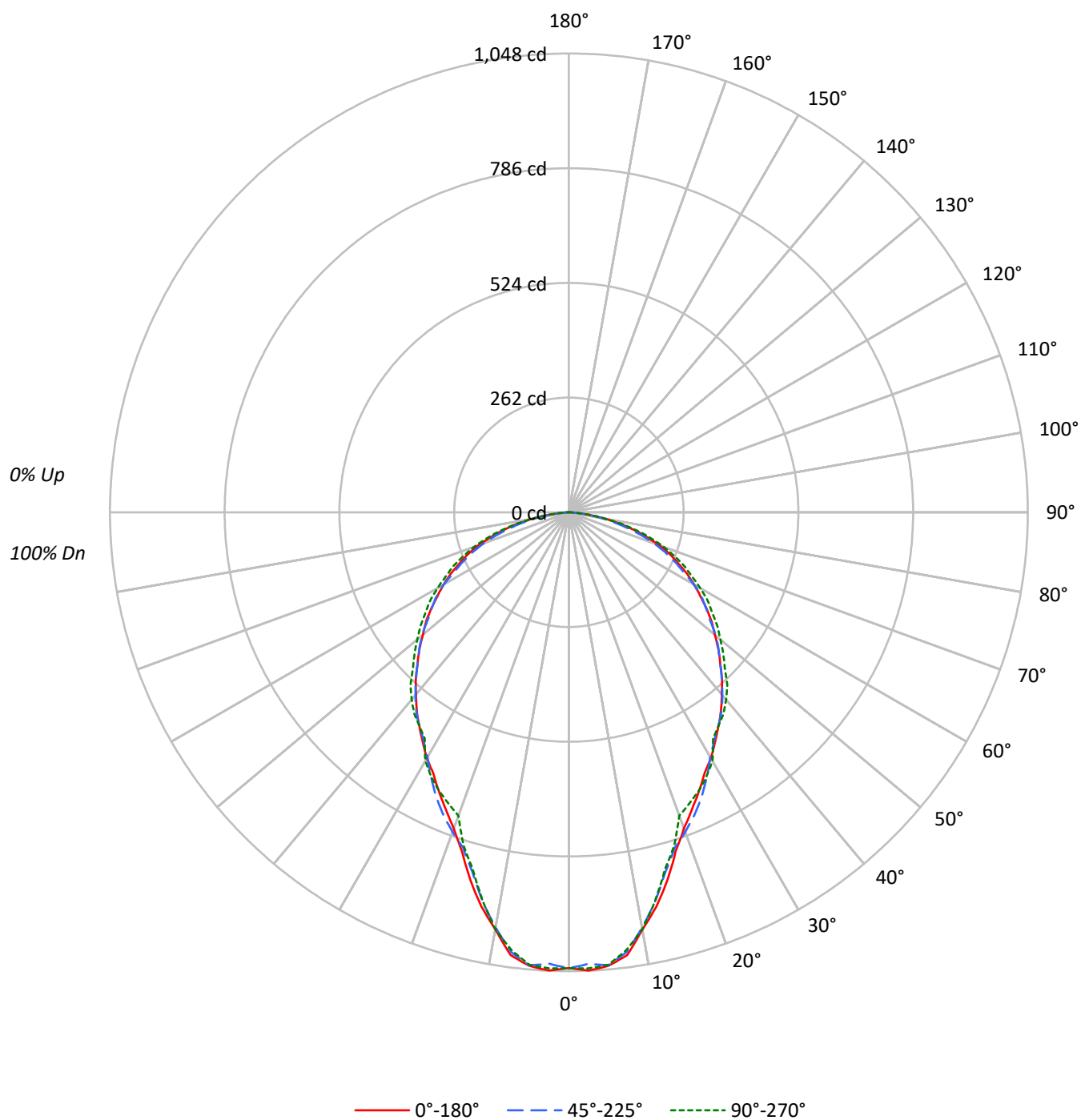
Lumens per Lamp: N/A
Luminaire Lumens: 2226.3 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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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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°	1401	1401	1401
5°	1405	1402	1401
10°	1322	1316	1321
15°	1211	1185	1178
20°	1100	1112	1056
25°	1043	1064	1042
30°	1008	1003	1019
35°	978	978	978
40°	954	957	981
45°	930	929	958
50°	910	917	945
55°	900	897	937
60°	889	887	932
65°	877	850	927
70°	860	812	903
75°	796	721	836
80°	646	587	662
85°	409	367	360



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	4.3
10°-20°	241.7	10.9
20°-30°	326.4	14.7
30°-40°	373.8	16.8
40°-50°	382.9	17.2
50°-60°	347.5	15.6
60°-70°	271.2	12.2
70°-80°	153.8	6.9
80°-90°	32.3	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°	664.9	29.9
0°-40°	1038.7	46.7
0°-60°	1769.0	79.5
0°-90°	2226.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2226.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1040	1028	1038	1040	1037	97
15°	869	872	850	855	846	243
25°	703	712	717	699	702	324
35°	596	597	596	596	596	373
45°	489	493	488	508	503	378
55°	384	383	382	396	400	343
65°	276	270	267	279	291	273
75°	153	142	139	147	161	160
85°	26	24	24	22	23	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1041.0	1041.0	1041.0	1041.0	1041.0
2.5°	1047.5	1039.4	1032.3	1043.7	1042.6
5°	1039.9	1028.0	1038.3	1040.5	1037.2
7.5°	1019.9	1012.3	1012.8	1008.5	1008.0
10°	967.4	971.7	963.0	970.6	966.8
12.5°	922.4	925.2	910.0	913.2	908.9
15°	869.4	872.1	850.4	854.8	845.6
17.5°	811.5	821.2	803.4	808.8	799.0
20°	768.2	776.3	776.8	768.2	737.3
22.5°	734.1	742.2	748.7	722.7	719.4
25°	702.7	711.9	716.7	699.4	701.6
27.5°	671.3	681.5	681.5	685.3	680.5
30°	648.5	652.9	645.8	659.9	655.6
32.5°	621.5	623.1	617.1	627.4	612.3
35°	595.5	596.6	595.5	596.0	595.5
37.5°	570.6	567.9	572.7	569.5	579.8
40°	543.0	543.0	545.1	550.5	558.7
42.5°	517.5	519.7	517.0	532.1	535.4
45°	488.8	492.6	488.3	508.3	503.4
47.5°	462.8	464.5	463.4	476.9	478.0
50°	434.7	436.9	437.9	449.9	451.5
52.5°	411.4	410.9	407.1	424.4	427.1
55°	383.8	383.3	382.2	395.7	399.5
57.5°	355.7	356.2	358.9	366.5	375.7
60°	330.2	327.5	329.7	338.9	346.5
62.5°	304.2	299.4	294.5	309.6	316.7
65°	275.5	269.6	266.9	279.3	291.2
67.5°	249.0	239.3	237.6	246.3	260.4
70°	218.7	206.8	206.3	212.7	229.5
72.5°	185.1	174.9	172.1	180.8	196.0
75°	153.2	141.8	138.6	146.7	160.8
77.5°	118.6	109.4	107.2	111.5	122.9
80°	83.4	78.0	75.8	77.4	85.5
82.5°	52.5	48.7	47.6	47.1	51.4
85°	26.5	23.8	23.8	22.2	23.3
87.5°	8.1	7.6	7.0	5.4	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)