

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: P486946

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-20-120-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: P486946
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-LD4-1STD-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

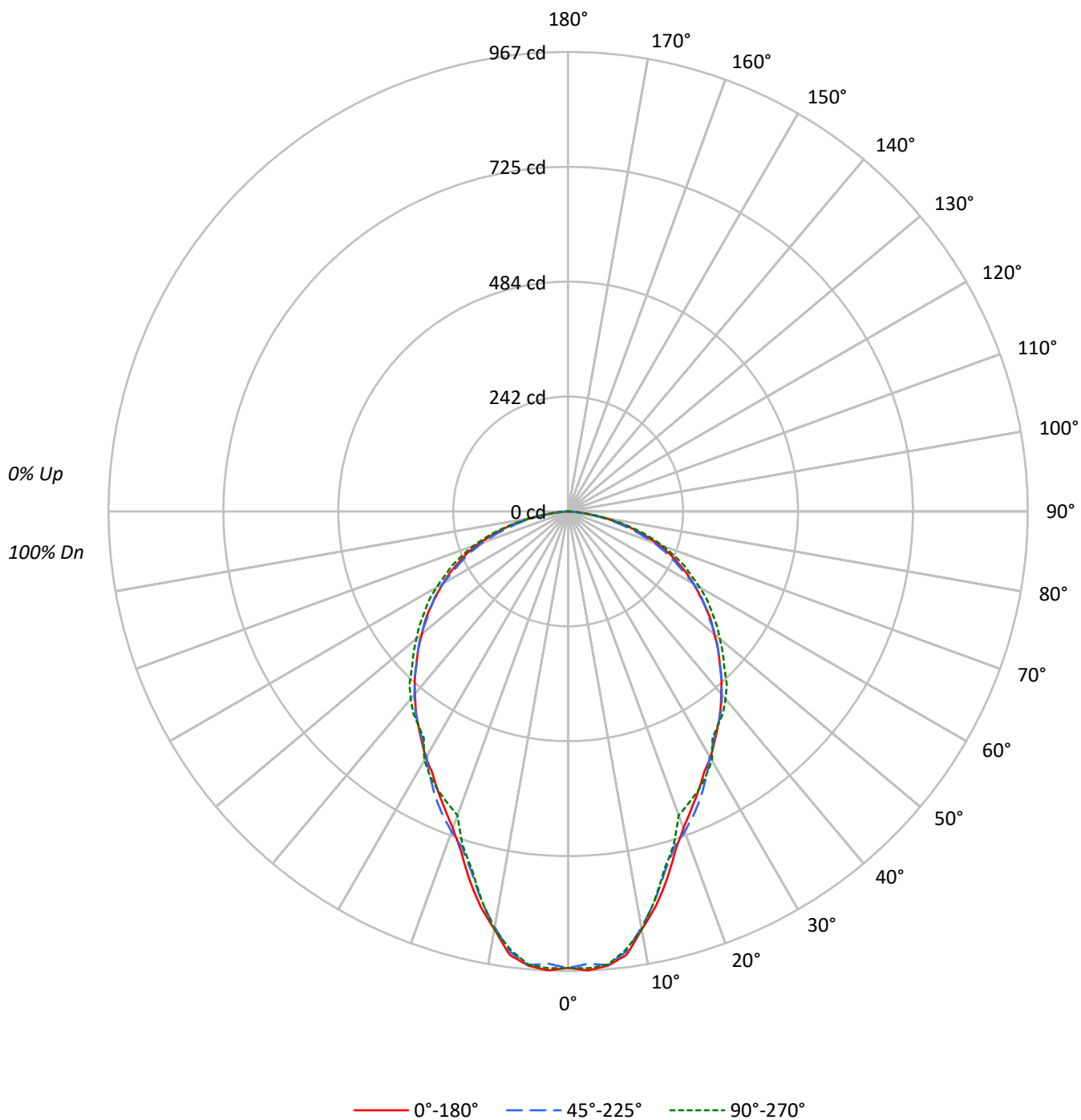
Lumens per Lamp: N/A
Luminaire Lumens: 2054.4 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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				10
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°	1292	1292	1292
5°	1296	1294	1293
10°	1220	1214	1219
15°	1118	1093	1087
20°	1015	1026	974
25°	963	982	961
30°	930	926	940
35°	903	903	903
40°	880	883	905
45°	858	857	884
50°	840	846	872
55°	831	827	865
60°	820	819	860
65°	810	784	856
70°	794	749	833
75°	735	665	771
80°	596	542	611
85°	378	340	332



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	4.3
10°-20°	223.1	10.9
20°-30°	301.2	14.7
30°-40°	345.0	16.8
40°-50°	353.4	17.2
50°-60°	320.6	15.6
60°-70°	250.2	12.2
70°-80°	141.9	6.9
80°-90°	29.8	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°	613.5	29.9
0°-40°	958.5	46.7
0°-60°	1632.4	79.5
0°-90°	2054.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2054.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	960	949	958	960	957	90
15°	802	805	785	789	780	224
25°	648	657	661	645	647	299
35°	550	550	550	550	550	344
45°	451	455	451	469	465	349
55°	354	354	353	365	369	317
65°	254	249	246	258	269	252
75°	141	131	128	135	148	148
85°	24	22	22	20	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.6	960.6	960.6	960.6	960.6
2.5°	966.6	959.1	952.6	963.1	962.1
5°	959.6	948.6	958.1	960.1	957.1
7.5°	941.1	934.1	934.6	930.6	930.1
10°	892.7	896.7	888.7	895.7	892.2
12.5°	851.2	853.7	839.7	842.7	838.7
15°	802.3	804.8	784.8	788.8	780.3
17.5°	748.8	757.8	741.3	746.3	737.3
20°	708.9	716.3	716.8	708.9	680.4
22.5°	677.4	684.9	690.9	666.9	663.9
25°	648.4	656.9	661.4	645.4	647.4
27.5°	619.4	628.9	628.9	632.4	627.9
30°	598.5	602.4	596.0	608.9	604.9
32.5°	573.5	575.0	569.5	579.0	565.0
35°	549.5	550.5	549.5	550.0	549.5
37.5°	526.5	524.0	528.5	525.5	535.0
40°	501.0	501.0	503.0	508.0	515.5
42.5°	477.6	479.6	477.1	491.1	494.0
45°	451.1	454.6	450.6	469.1	464.6
47.5°	427.1	428.6	427.6	440.1	441.1
50°	401.1	403.1	404.1	415.1	416.6
52.5°	379.7	379.2	375.7	391.6	394.1
55°	354.2	353.7	352.7	365.2	368.7
57.5°	328.2	328.7	331.2	338.2	346.7
60°	304.7	302.2	304.2	312.7	319.7
62.5°	280.7	276.2	271.8	285.7	292.2
65°	254.3	248.8	246.3	257.8	268.8
67.5°	229.8	220.8	219.3	227.3	240.3
70°	201.8	190.8	190.3	196.3	211.8
72.5°	170.8	161.4	158.9	166.8	180.8
75°	141.4	130.9	127.9	135.4	148.4
77.5°	109.4	100.9	98.9	102.9	113.4
80°	76.9	71.9	69.9	71.4	78.9
82.5°	48.5	45.0	44.0	43.5	47.5
85°	24.5	22.0	22.0	20.5	21.5
87.5°	7.5	7.0	6.5	5.0	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)