

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: P485648

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-50-120-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: P485648
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-24-2-INS-89BC-LD4-1LO-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

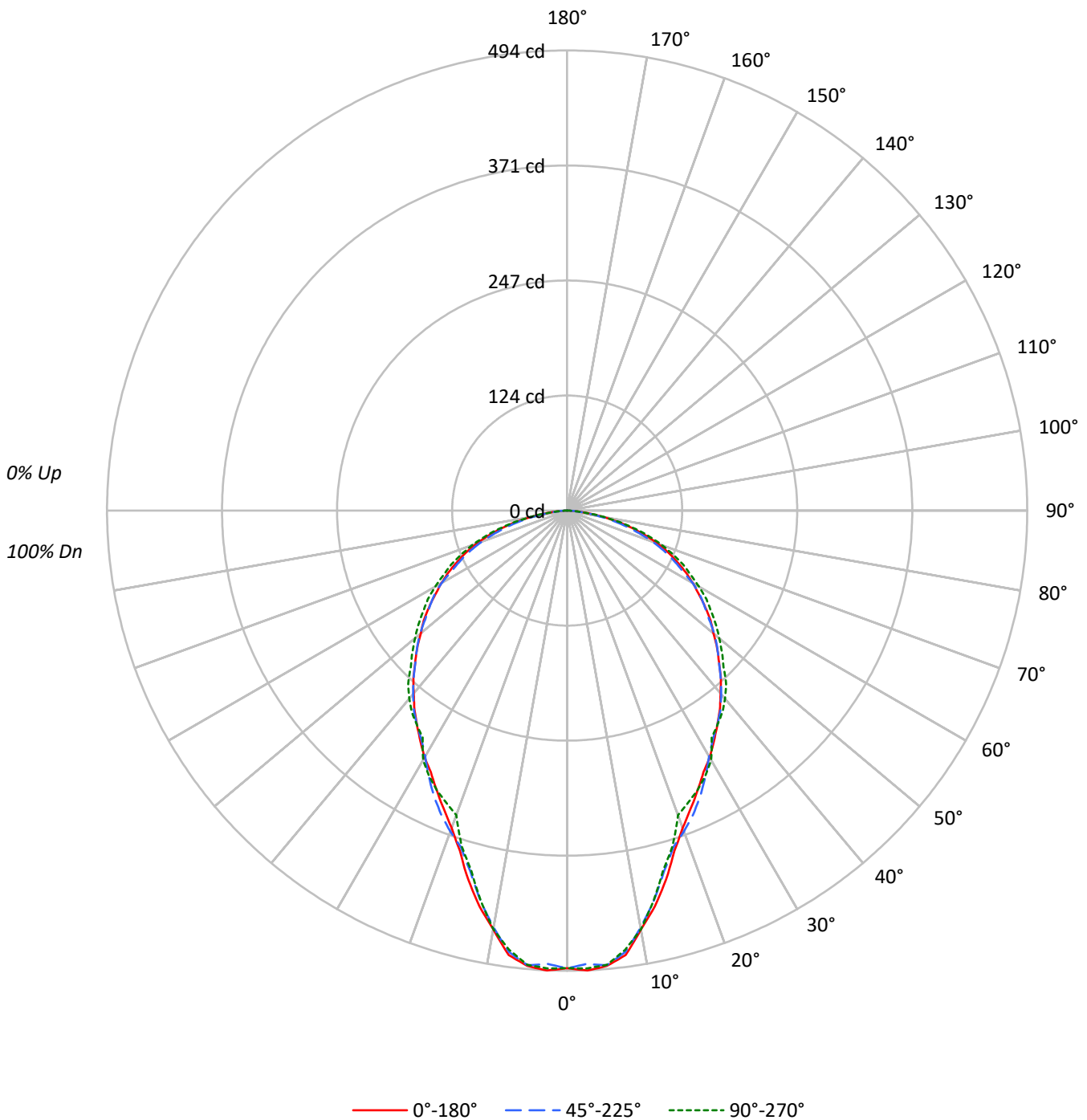
Lumens per Lamp: N/A
Luminaire Lumens: 1050.4 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1322	1322	1322
5°	1325	1323	1322
10°	1247	1242	1247
15°	1143	1118	1112
20°	1038	1050	996
25°	984	1004	983
30°	951	947	961
35°	923	923	923
40°	900	903	926
45°	878	877	904
50°	859	865	892
55°	850	846	884
60°	839	837	880
65°	828	802	875
70°	812	766	852
75°	752	680	789
80°	609	555	626
85°	386	346	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	4.3
10°-20°	114.1	10.9
20°-30°	154.0	14.7
30°-40°	176.4	16.8
40°-50°	180.7	17.2
50°-60°	163.9	15.6
60°-70°	127.9	12.2
70°-80°	72.6	6.9
80°-90°	15.2	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°	313.7	29.9
0°-40°	490.1	46.7
0°-60°	834.7	79.5
0°-90°	1050.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1050.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	491	485	490	491	489	46
15°	410	412	401	403	399	115
25°	332	336	338	330	331	153
35°	281	282	281	281	281	176
45°	231	232	230	240	238	178
55°	181	181	180	187	188	162
65°	130	127	126	132	137	129
75°	72	67	65	69	76	76
85°	12	11	11	10	11	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	491.2	491.2	491.2	491.2	491.2
2.5°	494.2	490.4	487.1	492.4	491.9
5°	490.6	485.0	489.9	490.9	489.4
7.5°	481.2	477.6	477.9	475.8	475.6
10°	456.4	458.5	454.4	458.0	456.2
12.5°	435.2	436.5	429.3	430.9	428.8
15°	410.2	411.5	401.3	403.3	399.0
17.5°	382.9	387.5	379.0	381.6	377.0
20°	362.4	366.3	366.5	362.4	347.9
22.5°	346.3	350.2	353.2	341.0	339.4
25°	331.5	335.9	338.2	330.0	331.0
27.5°	316.7	321.6	321.6	323.4	321.1
30°	306.0	308.0	304.7	311.3	309.3
32.5°	293.2	294.0	291.2	296.0	288.9
35°	281.0	281.5	281.0	281.2	281.0
37.5°	269.2	267.9	270.2	268.7	273.5
40°	256.2	256.2	257.2	259.8	263.6
42.5°	244.2	245.2	243.9	251.1	252.6
45°	230.6	232.4	230.4	239.8	237.5
47.5°	218.4	219.1	218.6	225.0	225.5
50°	205.1	206.1	206.6	212.2	213.0
52.5°	194.1	193.9	192.1	200.2	201.5
55°	181.1	180.8	180.3	186.7	188.5
57.5°	167.8	168.1	169.3	172.9	177.3
60°	155.8	154.5	155.5	159.9	163.5
62.5°	143.5	141.2	138.9	146.1	149.4
65°	130.0	127.2	125.9	131.8	137.4
67.5°	117.5	112.9	112.1	116.2	122.9
70°	103.2	97.6	97.3	100.4	108.3
72.5°	87.4	82.5	81.2	85.3	92.5
75°	72.3	66.9	65.4	69.2	75.9
77.5°	55.9	51.6	50.6	52.6	58.0
80°	39.3	36.8	35.8	36.5	40.4
82.5°	24.8	23.0	22.5	22.2	24.3
85°	12.5	11.2	11.2	10.5	11.0
87.5°	3.8	3.6	3.3	2.6	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)