

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: P485802

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-40-120-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: P485802
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-LD4-5STD-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

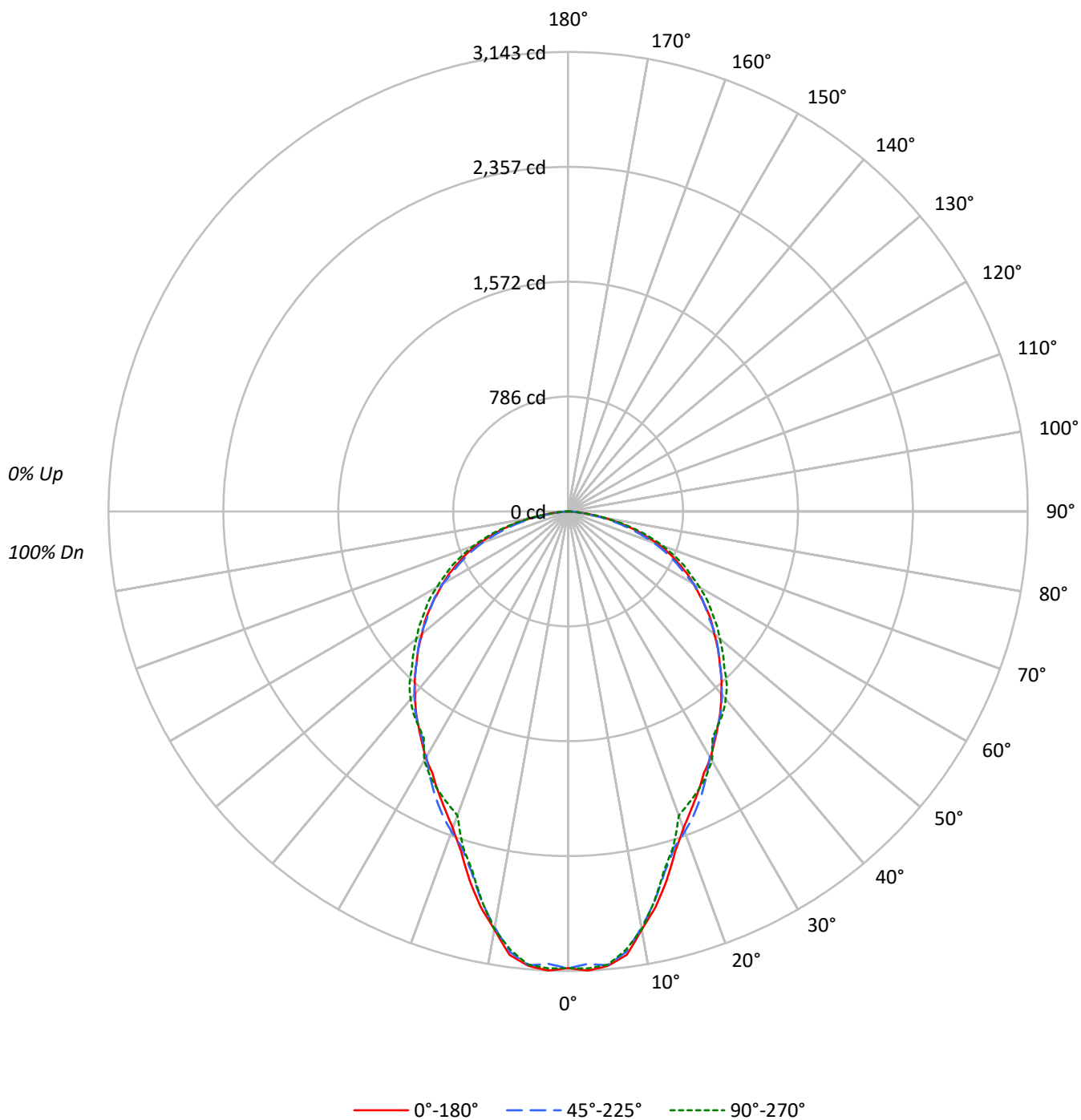
Lumens per Lamp: N/A
Luminaire Lumens: 6679.3 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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°	8404	8404	8404
5°	8428	8415	8406
10°	7931	7895	7926
15°	7266	7108	7068
20°	6600	6674	6335
25°	6259	6385	6250
30°	6046	6021	6111
35°	5869	5869	5869
40°	5722	5745	5888
45°	5581	5575	5748
50°	5460	5501	5671
55°	5402	5379	5623
60°	5332	5323	5594
65°	5264	5098	5564
70°	5162	4869	5418
75°	4779	4323	5016
80°	3876	3524	3976
85°	2458	2208	2155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.1	4.3
10°-20°	725.2	10.9
20°-30°	979.4	14.7
30°-40°	1121.5	16.8
40°-50°	1148.8	17.2
50°-60°	1042.4	15.6
60°-70°	813.6	12.2
70°-80°	461.4	6.9
80°-90°	96.9	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°	1994.7	29.9
0°-40°	3116.2	46.7
0°-60°	5307.4	79.5
0°-90°	6679.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6679.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3123	3123	3123	3123	3123	
5°	3120	3084	3115	3122	3112	291
15°	2608	2616	2552	2564	2537	729
25°	2108	2136	2150	2098	2105	973
35°	1786	1790	1786	1788	1786	1119
45°	1467	1478	1465	1525	1510	1134
55°	1152	1150	1147	1187	1199	1029
65°	827	809	801	838	874	819
75°	460	426	416	440	482	481
85°	80	72	72	67	70	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3123.2	3123.2	3123.2	3123.2	3123.2
2.5°	3142.7	3118.3	3097.2	3131.3	3128.1
5°	3119.9	3084.2	3115.1	3121.6	3111.8
7.5°	3059.8	3037.1	3038.7	3025.7	3024.1
10°	2902.3	2915.3	2889.3	2912.0	2900.7
12.5°	2767.5	2775.6	2730.1	2739.9	2726.9
15°	2608.3	2616.5	2551.5	2564.5	2536.9
17.5°	2434.6	2463.8	2410.2	2426.4	2397.2
20°	2304.6	2329.0	2330.6	2304.6	2212.1
22.5°	2202.3	2226.7	2246.2	2168.2	2158.5
25°	2108.1	2135.7	2150.3	2098.4	2104.9
27.5°	2013.9	2044.8	2044.8	2056.1	2041.5
30°	1945.7	1958.7	1937.6	1979.8	1966.8
32.5°	1864.5	1869.4	1851.5	1882.4	1836.9
35°	1786.5	1789.8	1786.5	1788.2	1786.5
37.5°	1711.8	1703.7	1718.3	1708.6	1739.4
40°	1629.0	1629.0	1635.5	1651.7	1676.1
42.5°	1552.7	1559.2	1551.0	1596.5	1606.3
45°	1466.6	1478.0	1465.0	1525.1	1510.4
47.5°	1388.6	1393.5	1390.2	1430.9	1434.1
50°	1304.2	1310.7	1313.9	1349.6	1354.5
52.5°	1234.3	1232.7	1221.3	1273.3	1281.4
55°	1151.5	1149.9	1146.6	1187.2	1198.6
57.5°	1067.0	1068.7	1076.8	1099.5	1127.1
60°	990.7	982.6	989.1	1016.7	1039.4
62.5°	912.8	898.1	883.5	929.0	950.1
65°	826.7	808.8	800.7	838.0	873.8
67.5°	747.1	717.9	713.0	739.0	781.2
70°	656.1	620.4	618.8	638.3	688.6
72.5°	555.4	524.6	516.5	542.5	587.9
75°	459.6	425.5	415.8	440.1	482.4
77.5°	355.7	328.1	321.6	334.6	368.7
80°	250.1	233.9	227.4	232.2	256.6
82.5°	157.5	146.2	142.9	141.3	154.3
85°	79.6	71.5	71.5	66.6	69.8
87.5°	24.4	22.7	21.1	16.2	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)