

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: P485760

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4STD-27-120-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: P485760
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-LD4-4STD-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

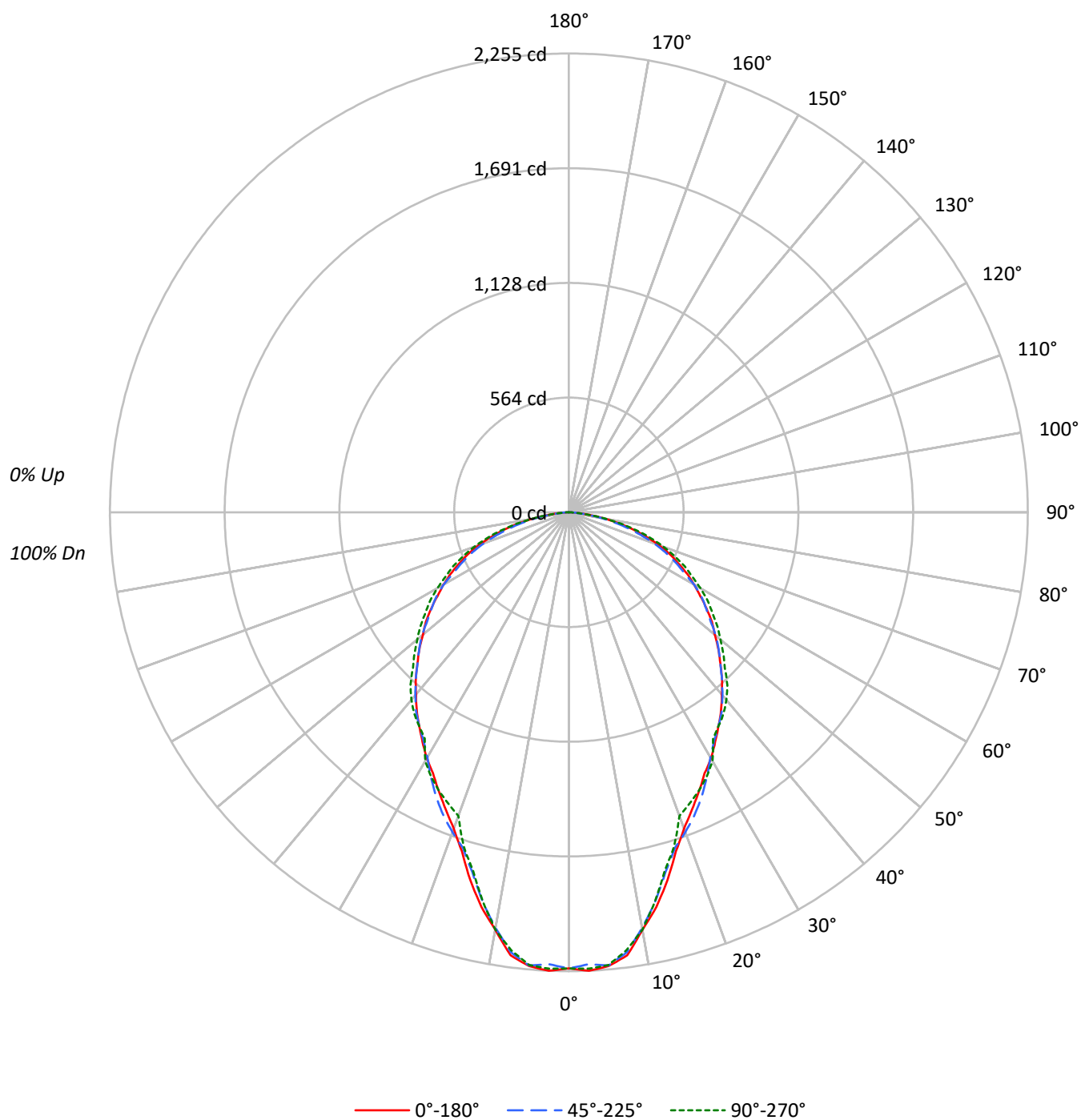
Lumens per Lamp: N/A
Luminaire Lumens: 4793.1 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6031	6031	6031
5°	6048	6038	6032
10°	5691	5666	5688
15°	5215	5101	5072
20°	4736	4790	4546
25°	4492	4582	4485
30°	4338	4320	4386
35°	4211	4211	4211
40°	4106	4123	4225
45°	4005	4001	4125
50°	3918	3947	4069
55°	3877	3860	4035
60°	3826	3820	4014
65°	3777	3659	3992
70°	3705	3493	3888
75°	3429	3103	3598
80°	2782	2529	2853
85°	1763	1584	1547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.2	4.3
10°-20°	520.4	10.9
20°-30°	702.8	14.7
30°-40°	804.8	16.8
40°-50°	824.4	17.2
50°-60°	748.0	15.6
60°-70°	583.8	12.2
70°-80°	331.1	6.9
80°-90°	69.5	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°	1431.4	29.9
0°-40°	2236.2	46.7
0°-60°	3808.6	79.5
0°-90°	4793.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4793.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2241	2241	2241	2241	2241	
5°	2239	2213	2235	2240	2233	209
15°	1872	1878	1831	1840	1820	523
25°	1513	1533	1543	1506	1510	698
35°	1282	1284	1282	1283	1282	803
45°	1052	1061	1051	1094	1084	814
55°	826	825	823	852	860	738
65°	593	580	575	601	627	588
75°	330	305	298	316	346	345
85°	57	51	51	48	50	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2241.2	2241.2	2241.2	2241.2	2241.2
2.5°	2255.2	2237.7	2222.6	2247.0	2244.7
5°	2238.9	2213.2	2235.4	2240.0	2233.1
7.5°	2195.8	2179.4	2180.6	2171.3	2170.1
10°	2082.7	2092.0	2073.4	2089.7	2081.5
12.5°	1986.0	1991.8	1959.2	1966.2	1956.8
15°	1871.8	1877.6	1831.0	1840.3	1820.5
17.5°	1747.1	1768.0	1729.6	1741.2	1720.2
20°	1653.8	1671.3	1672.5	1653.8	1587.4
22.5°	1580.4	1597.9	1611.9	1555.9	1548.9
25°	1512.8	1532.6	1543.1	1505.8	1510.5
27.5°	1445.2	1467.3	1467.3	1475.5	1465.0
30°	1396.2	1405.6	1390.4	1420.7	1411.4
32.5°	1338.0	1341.5	1328.6	1350.8	1318.2
35°	1282.0	1284.4	1282.0	1283.2	1282.0
37.5°	1228.4	1222.6	1233.1	1226.1	1248.2
40°	1169.0	1169.0	1173.6	1185.3	1202.8
42.5°	1114.2	1118.9	1113.0	1145.7	1152.7
45°	1052.4	1060.6	1051.3	1094.4	1083.9
47.5°	996.5	1000.0	997.6	1026.8	1029.1
50°	935.9	940.5	942.9	968.5	972.0
52.5°	885.8	884.6	876.4	913.7	919.6
55°	826.3	825.2	822.8	852.0	860.1
57.5°	765.7	766.9	772.7	789.0	808.8
60°	710.9	705.1	709.8	729.6	745.9
62.5°	655.0	644.5	634.0	666.7	681.8
65°	593.2	580.4	574.6	601.4	627.0
67.5°	536.1	515.1	511.6	530.3	560.6
70°	470.9	445.2	444.0	458.0	494.2
72.5°	398.6	376.4	370.6	389.3	421.9
75°	329.8	305.4	298.4	315.8	346.1
77.5°	255.2	235.4	230.8	240.1	264.6
80°	179.5	167.8	163.2	166.7	184.1
82.5°	113.1	104.9	102.6	101.4	110.7
85°	57.1	51.3	51.3	47.8	50.1
87.5°	17.5	16.3	15.2	11.7	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)