

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: P485840

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-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: P485840
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-LD4-6STD-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

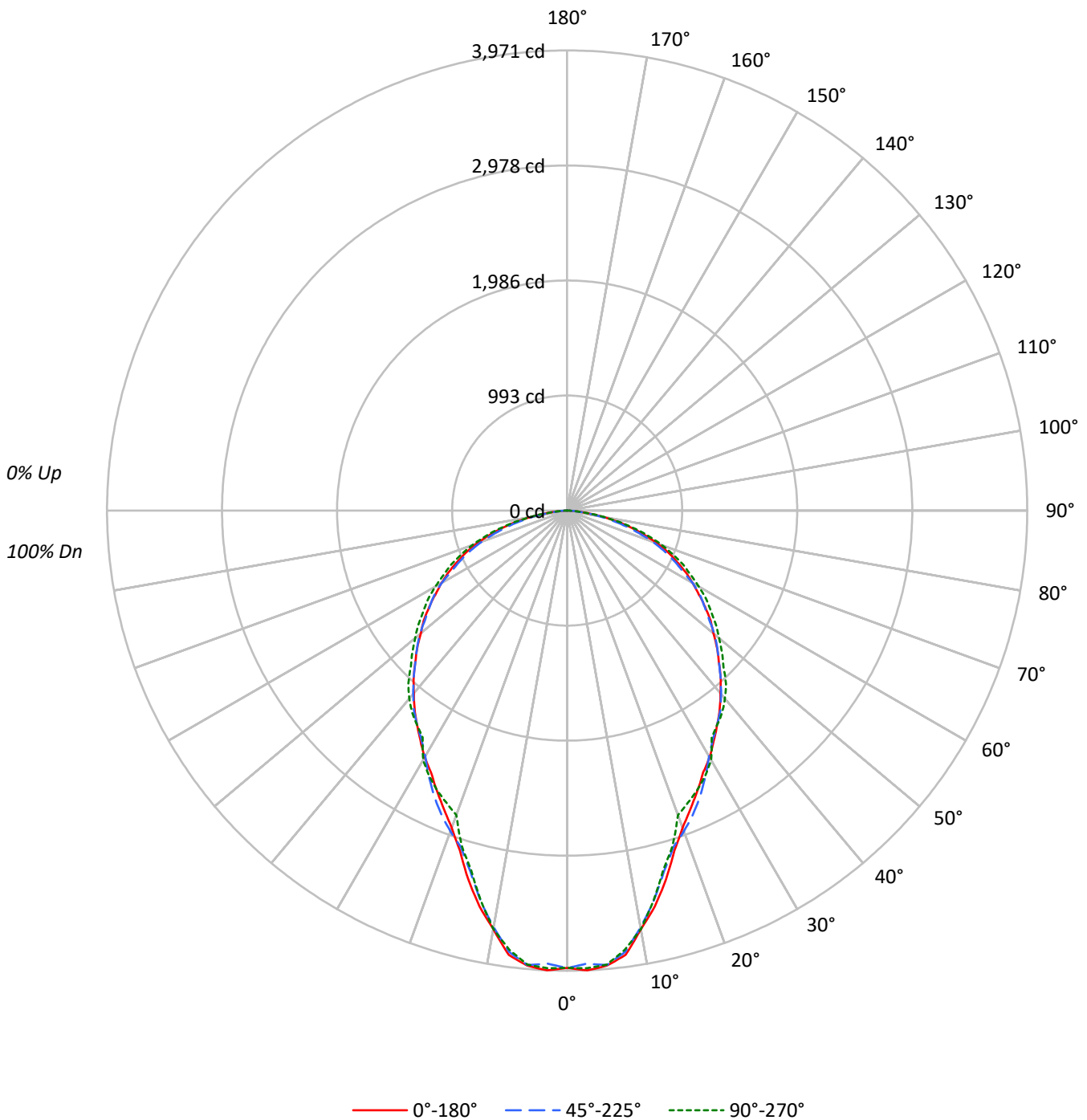
Lumens per Lamp: N/A
Luminaire Lumens: 8440.0 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10620	10620	10620
5°	10649	10633	10622
10°	10021	9976	10015
15°	9182	8982	8931
20°	8339	8434	8005
25°	7909	8068	7897
30°	7640	7608	7723
35°	7416	7416	7416
40°	7231	7260	7440
45°	7053	7045	7263
50°	6899	6951	7165
55°	6826	6798	7106
60°	6738	6726	7069
65°	6651	6443	7030
70°	6523	6152	6847
75°	6039	5463	6337
80°	4897	4452	5026
85°	3106	2788	2723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.5	4.3
10°-20°	916.4	10.9
20°-30°	1237.6	14.7
30°-40°	1417.2	16.8
40°-50°	1451.7	17.2
50°-60°	1317.2	15.6
60°-70°	1028.0	12.2
70°-80°	583.1	6.9
80°-90°	122.4	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°	2520.5	29.9
0°-40°	3937.7	46.7
0°-60°	6706.5	79.5
0°-90°	8440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3946	3946	3946	3946	3946	
5°	3942	3897	3936	3944	3932	368
15°	3296	3306	3224	3240	3206	921
25°	2664	2699	2717	2652	2660	1229
35°	2258	2262	2258	2260	2258	1414
45°	1853	1868	1851	1927	1909	1433
55°	1455	1453	1449	1500	1515	1300
65°	1045	1022	1012	1059	1104	1035
75°	581	538	525	556	610	608
85°	101	90	90	84	88	133
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3946.5	3946.5	3946.5	3946.5	3946.5
2.5°	3971.1	3940.3	3913.6	3956.7	3952.6
5°	3942.4	3897.2	3936.2	3944.4	3932.1
7.5°	3866.4	3837.7	3839.8	3823.3	3821.3
10°	3667.4	3683.8	3651.0	3679.7	3665.3
12.5°	3497.0	3507.3	3449.8	3462.1	3445.7
15°	3295.9	3306.2	3224.1	3240.5	3205.6
17.5°	3076.3	3113.3	3045.5	3066.1	3029.1
20°	2912.1	2942.9	2945.0	2912.1	2795.2
22.5°	2782.8	2813.6	2838.3	2739.8	2727.4
25°	2663.8	2698.7	2717.2	2651.5	2659.7
27.5°	2544.8	2583.8	2583.8	2598.1	2579.7
30°	2458.6	2475.0	2448.3	2501.7	2485.3
32.5°	2356.0	2362.1	2339.6	2378.6	2321.1
35°	2257.5	2261.6	2257.5	2259.5	2257.5
37.5°	2163.1	2152.8	2171.3	2159.0	2198.0
40°	2058.4	2058.4	2066.6	2087.1	2117.9
42.5°	1961.9	1970.2	1959.9	2017.4	2029.7
45°	1853.2	1867.5	1851.1	1927.1	1908.6
47.5°	1754.7	1760.8	1756.7	1808.0	1812.1
50°	1648.0	1656.2	1660.3	1705.4	1711.6
52.5°	1559.7	1557.7	1543.3	1609.0	1619.2
55°	1455.0	1453.0	1448.9	1500.2	1514.6
57.5°	1348.3	1350.4	1360.6	1389.4	1424.3
60°	1251.9	1241.6	1249.8	1284.7	1313.4
62.5°	1153.4	1134.9	1116.4	1173.9	1200.6
65°	1044.6	1022.0	1011.8	1059.0	1104.1
67.5°	944.0	907.1	900.9	933.8	987.1
70°	829.1	784.0	781.9	806.5	870.2
72.5°	701.9	662.9	652.6	685.5	742.9
75°	580.8	537.7	525.4	556.2	609.5
77.5°	449.4	414.6	406.3	422.8	465.9
80°	316.0	295.5	287.3	293.5	324.3
82.5°	199.1	184.7	180.6	178.5	195.0
85°	100.6	90.3	90.3	84.1	88.2
87.5°	30.8	28.7	26.7	20.5	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)