

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: P485838

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-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: P485838
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-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

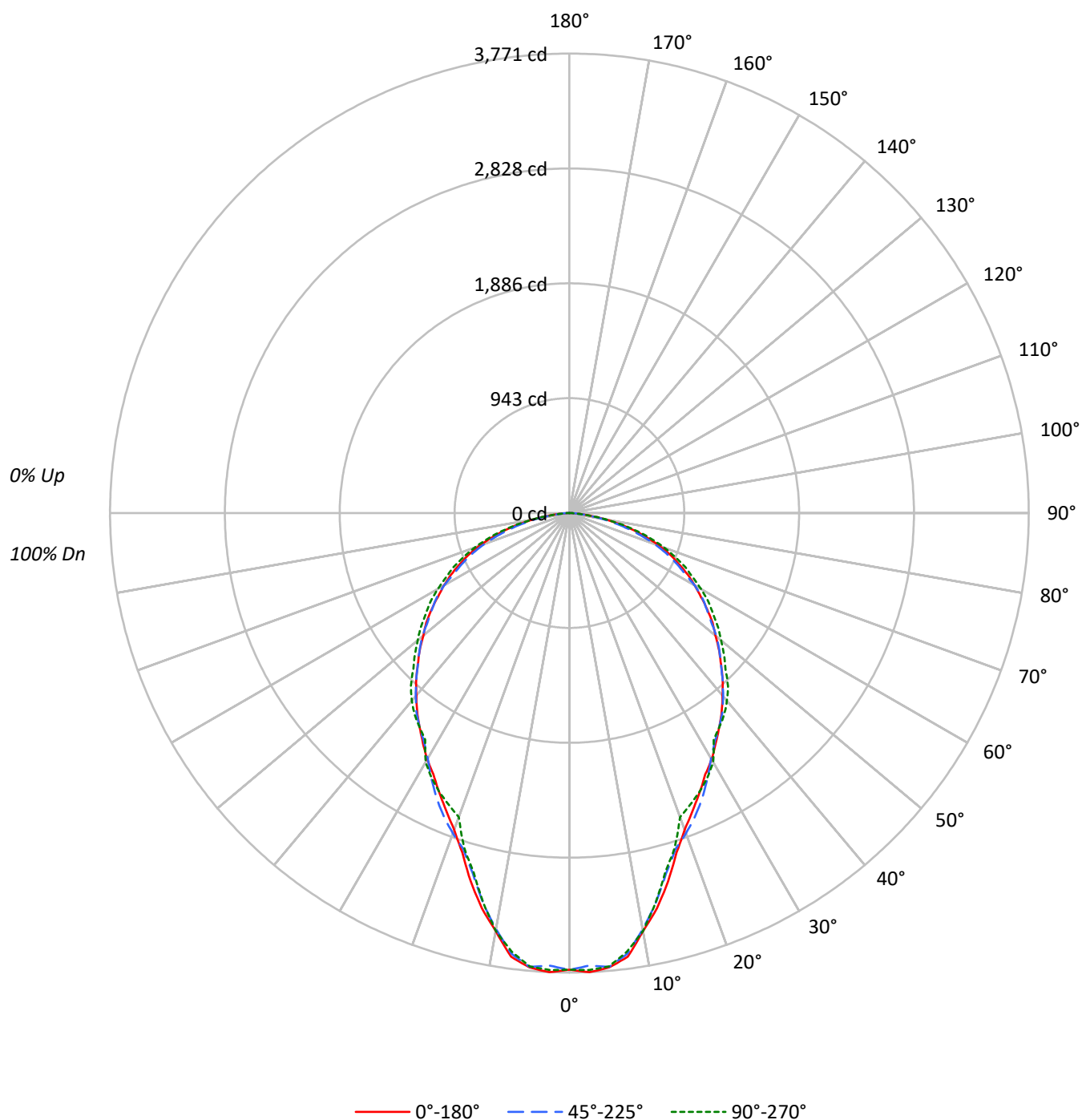
Lumens per Lamp: N/A
Luminaire Lumens: 8015.2 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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					0
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°	10085	10085	10085
5°	10113	10098	10087
10°	9517	9474	9511
15°	8720	8530	8481
20°	7920	8009	7602
25°	7511	7662	7500
30°	7255	7225	7334
35°	7043	7043	7043
40°	6867	6894	7065
45°	6698	6690	6898
50°	6552	6601	6805
55°	6483	6456	6748
60°	6399	6388	6713
65°	6316	6118	6676
70°	6195	5843	6502
75°	5735	5187	6018
80°	4651	4229	4771
85°	2949	2649	2587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.1	4.3
10°-20°	870.3	10.9
20°-30°	1175.3	14.7
30°-40°	1345.9	16.8
40°-50°	1378.6	17.2
50°-60°	1250.9	15.6
60°-70°	976.3	12.2
70°-80°	553.7	6.9
80°-90°	116.2	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°	2393.6	29.9
0°-40°	3739.5	46.7
0°-60°	6369.0	79.5
0°-90°	8015.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8015.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3748	3748	3748	3748	3748	
5°	3744	3701	3738	3746	3734	350
15°	3130	3140	3062	3077	3044	875
25°	2530	2563	2580	2518	2526	1167
35°	2144	2148	2144	2146	2144	1343
45°	1760	1774	1758	1830	1812	1361
55°	1382	1380	1376	1425	1438	1235
65°	992	971	961	1006	1048	983
75°	552	511	499	528	579	577
85°	96	86	86	80	84	126
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3747.8	3747.8	3747.8	3747.8	3747.8
2.5°	3771.2	3742.0	3716.7	3757.6	3753.7
5°	3743.9	3701.1	3738.1	3745.9	3734.2
7.5°	3671.8	3644.5	3646.5	3630.9	3629.0
10°	3482.8	3498.4	3467.2	3494.5	3480.8
12.5°	3321.0	3330.8	3276.2	3287.9	3272.3
15°	3130.0	3139.8	3061.8	3077.4	3044.3
17.5°	2921.5	2956.6	2892.3	2911.7	2876.7
20°	2765.6	2794.8	2796.8	2765.6	2654.5
22.5°	2642.8	2672.0	2695.4	2601.9	2590.2
25°	2529.7	2562.9	2580.4	2518.1	2525.8
27.5°	2416.7	2453.7	2453.7	2467.4	2449.8
30°	2334.8	2350.4	2325.1	2375.8	2360.2
32.5°	2237.4	2243.2	2221.8	2258.8	2204.3
35°	2143.9	2147.7	2143.9	2145.8	2143.9
37.5°	2054.2	2044.5	2062.0	2050.3	2087.3
40°	1954.8	1954.8	1962.6	1982.1	2011.3
42.5°	1863.2	1871.0	1861.3	1915.8	1927.5
45°	1759.9	1773.5	1758.0	1830.1	1812.5
47.5°	1666.4	1672.2	1668.3	1717.0	1720.9
50°	1565.0	1572.8	1576.7	1619.6	1625.4
52.5°	1481.2	1479.3	1465.6	1528.0	1537.7
55°	1381.8	1379.9	1376.0	1424.7	1438.3
57.5°	1280.5	1282.4	1292.2	1319.4	1352.6
60°	1188.9	1179.1	1186.9	1220.0	1247.3
62.5°	1095.3	1077.8	1060.2	1114.8	1140.1
65°	992.0	970.6	960.8	1005.7	1048.5
67.5°	896.5	861.4	855.6	886.8	937.4
70°	787.4	744.5	742.6	765.9	826.4
72.5°	666.5	629.5	619.8	651.0	705.5
75°	551.6	510.6	498.9	528.2	578.8
77.5°	426.8	393.7	385.9	401.5	442.4
80°	300.1	280.6	272.9	278.7	307.9
82.5°	189.0	175.4	171.5	169.6	185.2
85°	95.5	85.8	85.8	79.9	83.8
87.5°	29.2	27.3	25.3	19.5	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)