

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: P485750

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-30-120-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: P485750
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-LD4-4LO-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

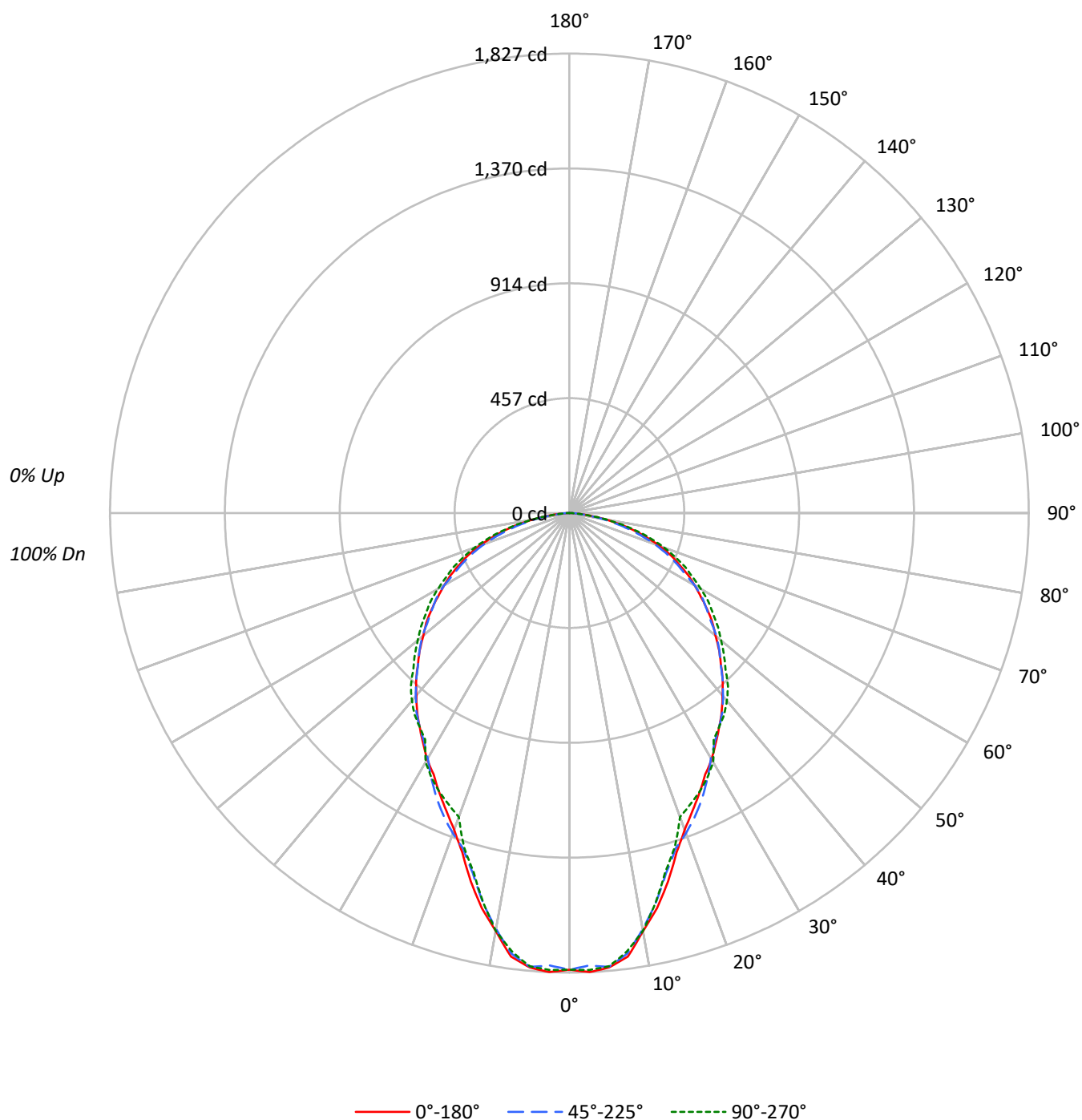
Lumens per Lamp: N/A
Luminaire Lumens: 3882.4 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	4885	4885	4885
5°	4899	4891	4886
10°	4610	4589	4607
15°	4224	4132	4108
20°	3836	3879	3682
25°	3638	3711	3633
30°	3514	3499	3552
35°	3411	3411	3411
40°	3326	3339	3422
45°	3244	3240	3341
50°	3174	3197	3296
55°	3140	3127	3269
60°	3099	3094	3252
65°	3060	2963	3234
70°	3001	2830	3150
75°	2778	2513	2915
80°	2253	2049	2312
85°	1430	1281	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.6	4.3
10°-20°	421.5	10.9
20°-30°	569.3	14.7
30°-40°	651.9	16.8
40°-50°	667.8	17.2
50°-60°	605.9	15.6
60°-70°	472.9	12.2
70°-80°	268.2	6.9
80°-90°	56.3	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°	1159.4	29.9
0°-40°	1811.3	46.7
0°-60°	3085.0	79.5
0°-90°	3882.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3882.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1815	1815	1815	1815	1815	
5°	1814	1793	1811	1814	1809	169
15°	1516	1521	1483	1491	1475	424
25°	1225	1241	1250	1220	1224	565
35°	1038	1040	1038	1039	1038	651
45°	852	859	852	886	878	659
55°	669	668	666	690	697	598
65°	480	470	465	487	508	476
75°	267	247	242	256	280	279
85°	46	42	42	39	41	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1815.4	1815.4	1815.4	1815.4	1815.4
2.5°	1826.7	1812.5	1800.3	1820.1	1818.2
5°	1813.5	1792.7	1810.7	1814.4	1808.8
7.5°	1778.6	1765.3	1766.3	1758.7	1757.8
10°	1687.0	1694.5	1679.4	1692.7	1686.0
12.5°	1608.6	1613.4	1586.9	1592.6	1585.0
15°	1516.1	1520.8	1483.1	1490.6	1474.6
17.5°	1415.1	1432.1	1400.9	1410.4	1393.4
20°	1339.6	1353.7	1354.7	1339.6	1285.8
22.5°	1280.1	1294.3	1305.6	1260.3	1254.6
25°	1225.4	1241.4	1249.9	1219.7	1223.5
27.5°	1170.6	1188.5	1188.5	1195.1	1186.7
30°	1131.0	1138.5	1126.2	1150.8	1143.2
32.5°	1083.8	1086.6	1076.2	1094.1	1067.7
35°	1038.4	1040.3	1038.4	1039.4	1038.4
37.5°	995.0	990.3	998.8	993.1	1011.1
40°	946.9	946.9	950.6	960.1	974.2
42.5°	902.5	906.3	901.6	928.0	933.7
45°	852.5	859.1	851.5	886.4	878.0
47.5°	807.1	810.0	808.1	831.7	833.6
50°	758.1	761.8	763.7	784.5	787.3
52.5°	717.5	716.5	709.9	740.1	744.8
55°	669.3	668.4	666.5	690.1	696.7
57.5°	620.2	621.2	625.9	639.1	655.2
60°	575.9	571.1	574.9	591.0	604.2
62.5°	530.5	522.1	513.6	540.0	552.3
65°	480.5	470.1	465.4	487.1	507.9
67.5°	434.3	417.3	414.4	429.5	454.1
70°	381.4	360.6	359.7	371.0	400.3
72.5°	322.9	304.9	300.2	315.3	341.7
75°	267.2	247.3	241.7	255.8	280.4
77.5°	206.7	190.7	186.9	194.5	214.3
80°	145.4	135.9	132.2	135.0	149.2
82.5°	91.6	85.0	83.1	82.1	89.7
85°	46.3	41.5	41.5	38.7	40.6
87.5°	14.2	13.2	12.3	9.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)