

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: P485777

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-35-120-EDD**

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: P485777
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-LD4-5HI-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

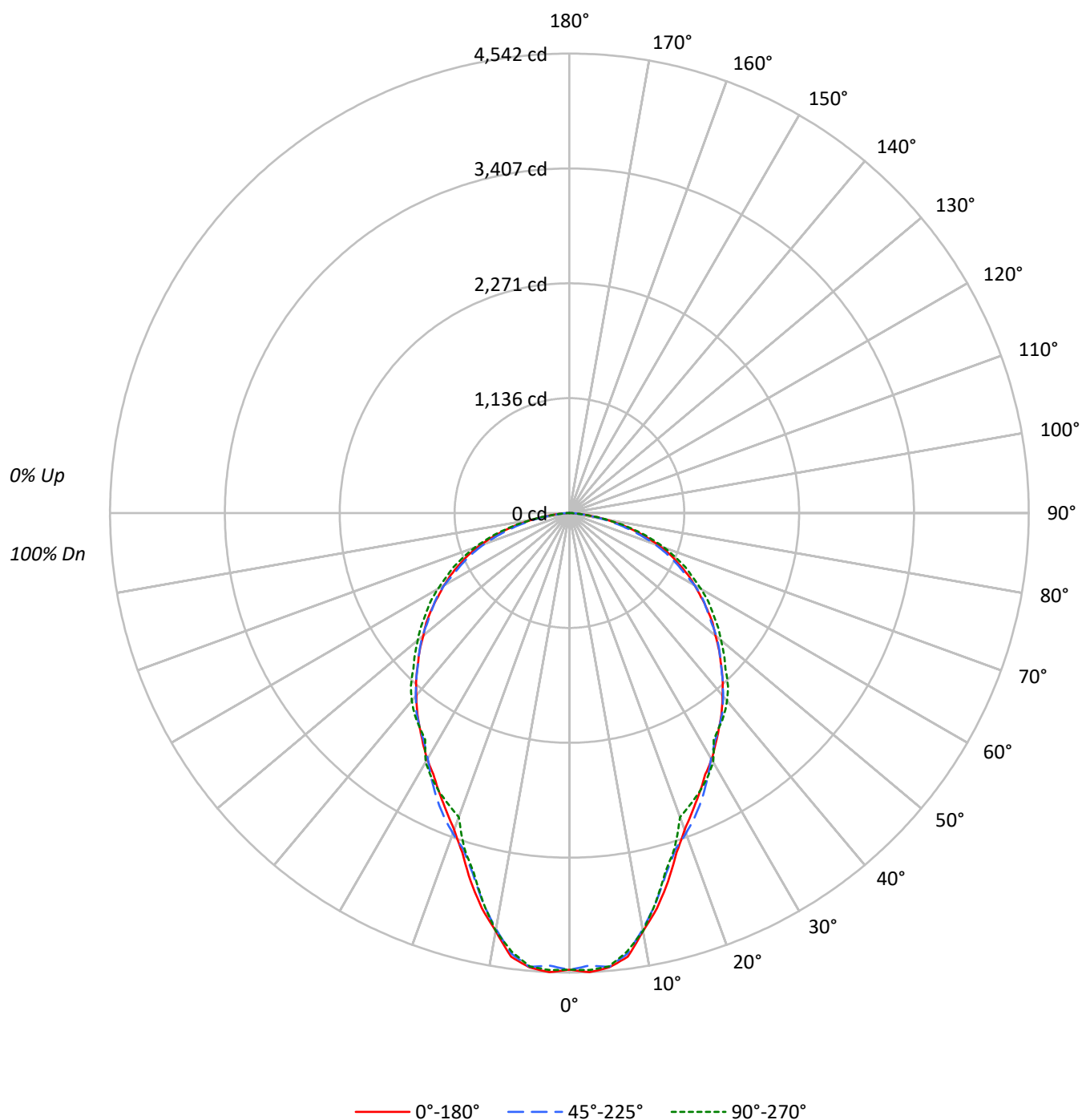
Lumens per Lamp: N/A
Luminaire Lumens: 9654.0 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5HI-35-120-EDD

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°	12147	12147	12147
5°	12181	12162	12149
10°	11463	11411	11456
15°	10503	10274	10215
20°	9539	9647	9156
25°	9047	9228	9033
30°	8738	8702	8833
35°	8483	8483	8483
40°	8271	8304	8510
45°	8067	8058	8308
50°	7891	7950	8196
55°	7808	7775	8128
60°	7706	7694	8086
65°	7608	7369	8041
70°	7462	7037	7831
75°	6907	6248	7249
80°	5602	5092	5748
85°	3551	3189	3115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.3	4.3
10°-20°	1048.2	10.9
20°-30°	1415.6	14.7
30°-40°	1621.0	16.8
40°-50°	1660.5	17.2
50°-60°	1506.6	15.6
60°-70°	1175.9	12.2
70°-80°	666.9	6.9
80°-90°	140.0	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°	2883.0	29.9
0°-40°	4504.1	46.7
0°-60°	7671.2	79.5
0°-90°	9654.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4514	4514	4514	4514	4514	
5°	4509	4458	4502	4512	4498	421
15°	3770	3782	3688	3707	3667	1054
25°	3047	3087	3108	3033	3042	1406
35°	2582	2587	2582	2584	2582	1618
45°	2120	2136	2117	2204	2183	1639
55°	1664	1662	1657	1716	1732	1487
65°	1195	1169	1157	1211	1263	1184
75°	664	615	601	636	697	695
85°	115	103	103	96	101	152
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4514.1	4514.1	4514.1	4514.1	4514.1
2.5°	4542.3	4507.1	4476.6	4525.9	4521.2
5°	4509.4	4457.8	4502.4	4511.8	4497.7
7.5°	4422.6	4389.7	4392.1	4373.3	4370.9
10°	4194.9	4213.7	4176.1	4209.0	4192.5
12.5°	4000.0	4011.8	3946.0	3960.1	3941.4
15°	3770.0	3781.7	3687.8	3706.6	3666.7
17.5°	3518.8	3561.1	3483.6	3507.1	3464.8
20°	3331.0	3366.2	3368.6	3331.0	3197.2
22.5°	3183.1	3218.3	3246.5	3133.8	3119.8
25°	3047.0	3086.9	3108.0	3032.9	3042.3
27.5°	2910.8	2955.4	2955.4	2971.9	2950.7
30°	2812.2	2831.0	2800.5	2861.5	2842.8
32.5°	2694.9	2701.9	2676.1	2720.7	2655.0
35°	2582.2	2586.9	2582.2	2584.5	2582.2
37.5°	2474.2	2462.5	2483.6	2469.5	2514.1
40°	2354.5	2354.5	2363.9	2387.3	2422.6
42.5°	2244.2	2253.5	2241.8	2307.5	2321.6
45°	2119.7	2136.2	2117.4	2204.2	2183.1
47.5°	2007.1	2014.1	2009.4	2068.1	2072.8
50°	1885.0	1894.4	1899.1	1950.7	1957.8
52.5°	1784.1	1781.7	1765.3	1840.4	1852.1
55°	1664.3	1662.0	1657.3	1716.0	1732.4
57.5°	1542.3	1544.6	1556.4	1589.2	1629.1
60°	1431.9	1420.2	1429.6	1469.5	1502.4
62.5°	1319.3	1298.1	1277.0	1342.7	1373.3
65°	1194.8	1169.0	1157.3	1211.3	1262.9
67.5°	1079.8	1037.6	1030.5	1068.1	1129.1
70°	948.4	896.7	894.4	922.5	995.3
72.5°	802.8	758.2	746.5	784.0	849.8
75°	664.3	615.0	600.9	636.2	697.2
77.5°	514.1	474.2	464.8	483.6	532.9
80°	361.5	338.0	328.6	335.7	370.9
82.5°	227.7	211.3	206.6	204.2	223.0
85°	115.0	103.3	103.3	96.2	100.9
87.5°	35.2	32.9	30.5	23.5	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)