

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: P485691

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-30-120-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: P485691
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-LD4-2STD-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

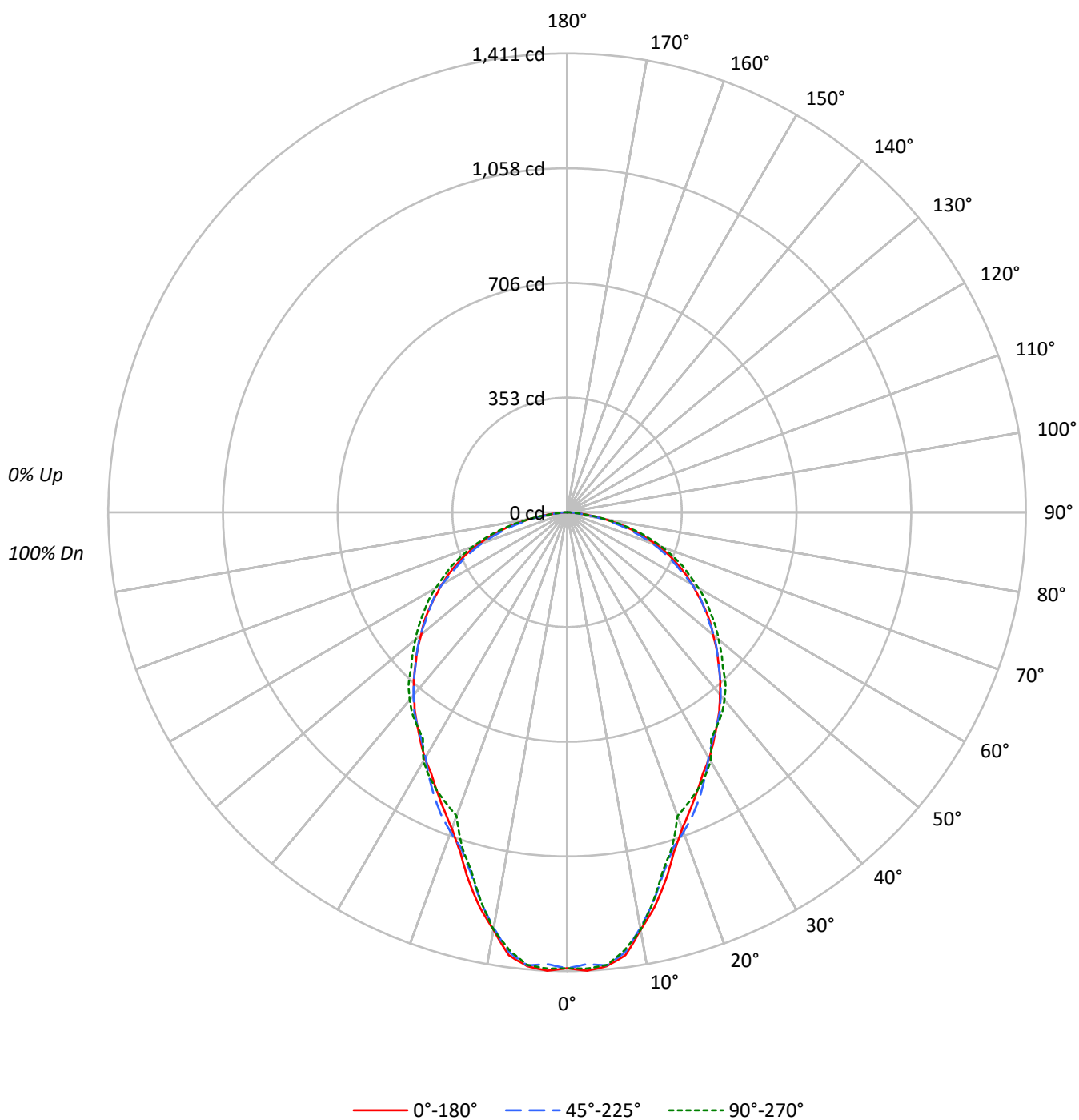
Lumens per Lamp: N/A
Luminaire Lumens: 2999.6 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3774	3774	3774
5°	3785	3779	3775
10°	3562	3546	3560
15°	3263	3192	3174
20°	2964	2997	2845
25°	2811	2867	2807
30°	2715	2704	2745
35°	2636	2636	2636
40°	2570	2580	2644
45°	2506	2504	2581
50°	2452	2470	2547
55°	2426	2416	2525
60°	2394	2391	2512
65°	2364	2290	2499
70°	2319	2186	2434
75°	2146	1941	2252
80°	1740	1582	1785
85°	1102	991	969



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.3	4.3
10°-20°	325.7	10.9
20°-30°	439.8	14.7
30°-40°	503.7	16.8
40°-50°	515.9	17.2
50°-60°	468.1	15.6
60°-70°	365.4	12.2
70°-80°	207.2	6.9
80°-90°	43.5	1.4
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°	895.8	29.9
0°-40°	1399.5	46.7
0°-60°	2383.5	79.5
0°-90°	2999.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2999.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1403	1403	1403	1403	1403	
5°	1401	1385	1399	1402	1398	131
15°	1171	1175	1146	1152	1139	327
25°	947	959	966	942	945	437
35°	802	804	802	803	802	503
45°	659	664	658	685	678	509
55°	517	516	515	533	538	462
65°	371	363	360	376	392	368
75°	206	191	187	198	217	216
85°	36	32	32	30	31	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.6	1402.6	1402.6	1402.6	1402.6
2.5°	1411.3	1400.4	1390.9	1406.2	1404.8
5°	1401.1	1385.1	1398.9	1401.9	1397.5
7.5°	1374.1	1363.9	1364.7	1358.8	1358.1
10°	1303.4	1309.2	1297.6	1307.8	1302.7
12.5°	1242.9	1246.5	1226.1	1230.5	1224.6
15°	1171.4	1175.0	1145.8	1151.7	1139.3
17.5°	1093.3	1106.5	1082.4	1089.7	1076.6
20°	1035.0	1045.9	1046.7	1035.0	993.4
22.5°	989.0	1000.0	1008.7	973.7	969.3
25°	946.7	959.1	965.7	942.4	945.3
27.5°	904.4	918.3	918.3	923.4	916.8
30°	873.8	879.6	870.1	889.1	883.3
32.5°	837.3	839.5	831.5	845.3	824.9
35°	802.3	803.8	802.3	803.0	802.3
37.5°	768.8	765.1	771.7	767.3	781.2
40°	731.6	731.6	734.5	741.8	752.7
42.5°	697.3	700.2	696.6	717.0	721.4
45°	658.6	663.7	657.9	684.9	678.3
47.5°	623.6	625.8	624.3	642.6	644.0
50°	585.7	588.6	590.1	606.1	608.3
52.5°	554.3	553.6	548.5	571.8	575.5
55°	517.1	516.4	514.9	533.2	538.3
57.5°	479.2	479.9	483.6	493.8	506.2
60°	444.9	441.3	444.2	456.6	466.8
62.5°	409.9	403.3	396.8	417.2	426.7
65°	371.3	363.2	359.6	376.4	392.4
67.5°	335.5	322.4	320.2	331.9	350.8
70°	294.7	278.6	277.9	286.6	309.3
72.5°	249.4	235.6	231.9	243.6	264.0
75°	206.4	191.1	186.7	197.7	216.6
77.5°	159.7	147.3	144.4	150.3	165.6
80°	112.3	105.0	102.1	104.3	115.2
82.5°	70.7	65.6	64.2	63.5	69.3
85°	35.7	32.1	32.1	29.9	31.4
87.5°	10.9	10.2	9.5	7.3	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)