

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: P485716

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-35-120-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: P485716
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-LD4-3LO-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

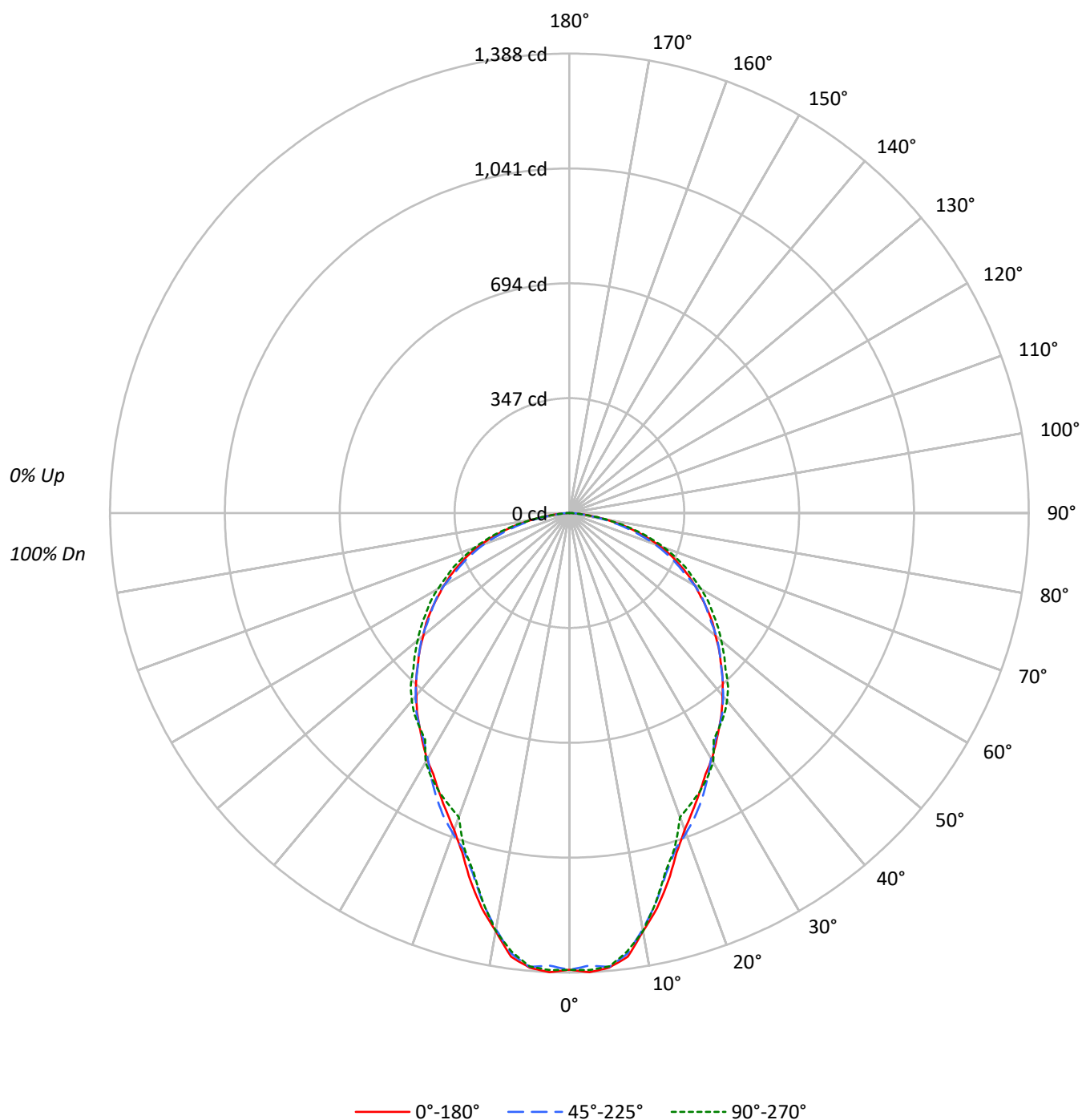
Lumens per Lamp: N/A
Luminaire Lumens: 2950.7 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	3713	3713	3713
5°	3723	3717	3713
10°	3503	3488	3501
15°	3210	3140	3122
20°	2916	2948	2798
25°	2765	2820	2761
30°	2671	2660	2700
35°	2593	2593	2593
40°	2528	2538	2601
45°	2466	2463	2539
50°	2412	2430	2505
55°	2387	2376	2484
60°	2356	2351	2471
65°	2325	2252	2458
70°	2281	2151	2393
75°	2111	1910	2216
80°	1712	1556	1757
85°	1087	976	954



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.1	4.3
10°-20°	320.4	10.9
20°-30°	432.7	14.7
30°-40°	495.5	16.8
40°-50°	507.5	17.2
50°-60°	460.5	15.6
60°-70°	359.4	12.2
70°-80°	203.8	6.9
80°-90°	42.8	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°	881.2	29.9
0°-40°	1376.6	46.7
0°-60°	2344.6	79.5
0°-90°	2950.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2950.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1378	1362	1376	1379	1375	129
15°	1152	1156	1127	1133	1121	322
25°	931	944	950	927	930	430
35°	789	791	789	790	789	494
45°	648	653	647	674	667	501
55°	509	508	506	524	530	455
65°	365	357	354	370	386	362
75°	203	188	184	194	213	212
85°	35	32	32	29	31	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1379.7	1379.7	1379.7	1379.7	1379.7
2.5°	1388.3	1377.6	1368.2	1383.3	1381.9
5°	1378.3	1362.5	1376.1	1379.0	1374.7
7.5°	1351.7	1341.7	1342.4	1336.7	1336.0
10°	1282.1	1287.9	1276.4	1286.5	1281.4
12.5°	1222.6	1226.2	1206.1	1210.4	1204.7
15°	1152.3	1155.9	1127.2	1132.9	1120.7
17.5°	1075.5	1088.4	1064.7	1071.9	1059.0
20°	1018.1	1028.9	1029.6	1018.1	977.2
22.5°	972.9	983.7	992.3	957.8	953.5
25°	931.3	943.5	949.9	927.0	929.9
27.5°	889.7	903.3	903.3	908.3	901.9
30°	859.5	865.3	856.0	874.6	868.9
32.5°	823.7	825.8	817.9	831.6	811.5
35°	789.2	790.7	789.2	790.0	789.2
37.5°	756.2	752.6	759.1	754.8	768.4
40°	719.6	719.6	722.5	729.7	740.4
42.5°	685.9	688.8	685.2	705.3	709.6
45°	647.9	652.9	647.2	673.7	667.3
47.5°	613.4	615.6	614.2	632.1	633.5
50°	576.1	579.0	580.4	596.2	598.4
52.5°	545.3	544.6	539.5	562.5	566.1
55°	508.7	508.0	506.5	524.5	529.5
57.5°	471.4	472.1	475.7	485.7	497.9
60°	437.7	434.1	436.9	449.1	459.2
62.5°	403.2	396.8	390.3	410.4	419.7
65°	365.2	357.3	353.7	370.2	386.0
67.5°	330.0	317.1	315.0	326.5	345.1
70°	289.9	274.1	273.4	282.0	304.2
72.5°	245.4	231.7	228.2	239.6	259.7
75°	203.0	188.0	183.7	194.4	213.1
77.5°	157.1	144.9	142.1	147.8	162.9
80°	110.5	103.3	100.4	102.6	113.4
82.5°	69.6	64.6	63.1	62.4	68.2
85°	35.2	31.6	31.6	29.4	30.9
87.5°	10.8	10.0	9.3	7.2	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)