

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: P485697

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-50-120-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: P485697
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-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

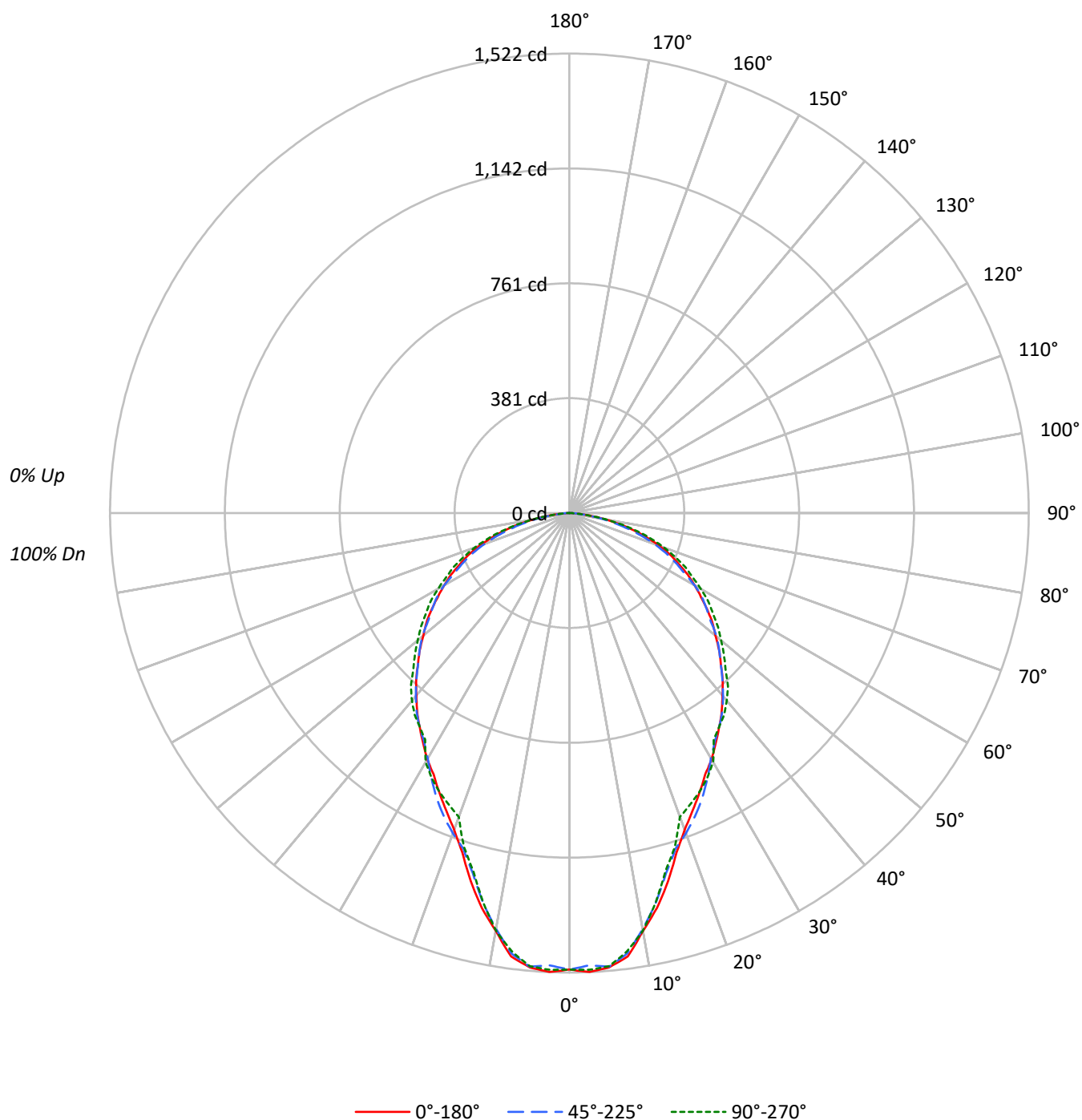
Lumens per Lamp: N/A
Luminaire Lumens: 3233.7 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4069	4069	4069
5°	4080	4074	4069
10°	3839	3822	3837
15°	3518	3441	3422
20°	3195	3231	3067
25°	3030	3091	3026
30°	2927	2915	2959
35°	2841	2841	2841
40°	2771	2781	2851
45°	2702	2699	2783
50°	2643	2663	2745
55°	2616	2604	2723
60°	2581	2577	2708
65°	2548	2468	2693
70°	2500	2357	2623
75°	2313	2093	2428
80°	1877	1706	1925
85°	1189	1068	1044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	4.3
10°-20°	351.1	10.9
20°-30°	474.2	14.7
30°-40°	543.0	16.8
40°-50°	556.2	17.2
50°-60°	504.7	15.6
60°-70°	393.9	12.2
70°-80°	223.4	6.9
80°-90°	46.9	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°	965.7	29.9
0°-40°	1508.7	46.7
0°-60°	2569.5	79.5
0°-90°	3233.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3233.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1512	1512	1512	1512	1512	
5°	1510	1493	1508	1511	1506	141
15°	1263	1267	1235	1242	1228	353
25°	1021	1034	1041	1016	1019	471
35°	865	866	865	866	865	542
45°	710	716	709	738	731	549
55°	558	557	555	575	580	498
65°	400	392	388	406	423	397
75°	222	206	201	213	234	233
85°	38	35	35	32	34	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1512.1	1512.1	1512.1	1512.1	1512.1
2.5°	1521.5	1509.7	1499.5	1516.0	1514.4
5°	1510.5	1493.2	1508.1	1511.3	1506.5
7.5°	1481.4	1470.4	1471.2	1464.9	1464.1
10°	1405.1	1411.4	1398.8	1409.8	1404.3
12.5°	1339.9	1343.8	1321.8	1326.5	1320.2
15°	1262.8	1266.7	1235.3	1241.6	1228.2
17.5°	1178.7	1192.8	1166.9	1174.7	1160.6
20°	1115.8	1127.6	1128.3	1115.8	1070.9
22.5°	1066.2	1078.0	1087.5	1049.7	1045.0
25°	1020.6	1034.0	1041.1	1015.9	1019.0
27.5°	975.0	989.9	989.9	995.5	988.4
30°	942.0	948.3	938.1	958.5	952.2
32.5°	902.7	905.0	896.4	911.3	889.3
35°	864.9	866.5	864.9	865.7	864.9
37.5°	828.8	824.8	831.9	827.2	842.1
40°	788.7	788.7	791.8	799.7	811.5
42.5°	751.7	754.8	750.9	772.9	777.6
45°	710.0	715.5	709.2	738.3	731.3
47.5°	672.3	674.6	673.1	692.7	694.3
50°	631.4	634.5	636.1	653.4	655.8
52.5°	597.6	596.8	591.3	616.5	620.4
55°	557.5	556.7	555.1	574.8	580.3
57.5°	516.6	517.4	521.3	532.3	545.7
60°	479.6	475.7	478.9	492.2	503.2
62.5°	441.9	434.8	427.7	449.8	460.0
65°	400.2	391.6	387.6	405.7	423.0
67.5°	361.7	347.5	345.2	357.8	378.2
70°	317.7	300.4	299.6	309.0	333.4
72.5°	268.9	254.0	250.0	262.6	284.6
75°	222.5	206.0	201.3	213.1	233.5
77.5°	172.2	158.8	155.7	162.0	178.5
80°	121.1	113.2	110.1	112.4	124.2
82.5°	76.3	70.8	69.2	68.4	74.7
85°	38.5	34.6	34.6	32.2	33.8
87.5°	11.8	11.0	10.2	7.9	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)