

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: P485785

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-27-120-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: P485785
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-LD4-5LO-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

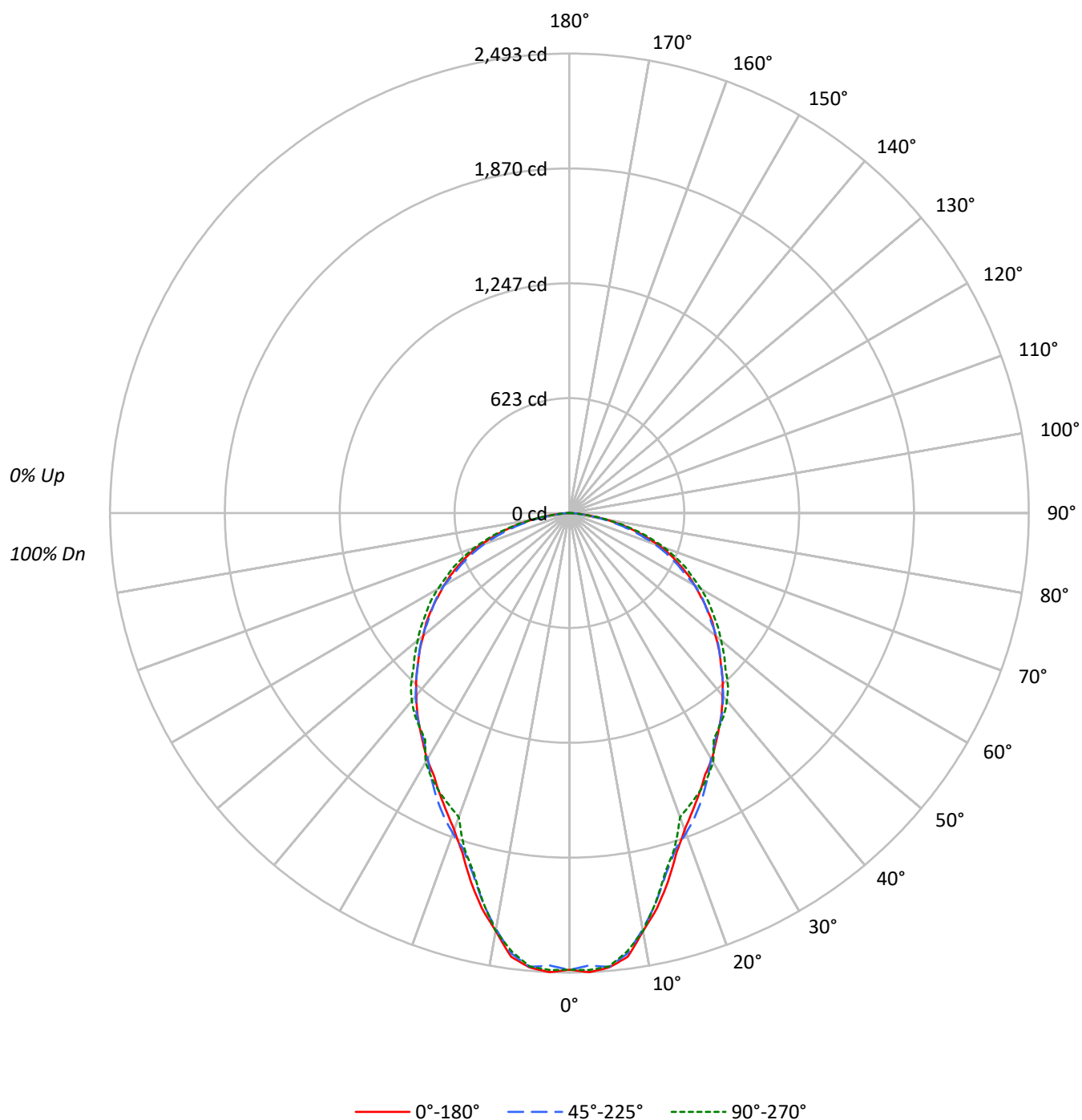
Lumens per Lamp: N/A
Luminaire Lumens: 5298.5 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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					10
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°	6667	6667	6667
5°	6686	6675	6668
10°	6291	6263	6287
15°	5764	5639	5606
20°	5235	5294	5025
25°	4965	5065	4958
30°	4796	4776	4848
35°	4656	4656	4656
40°	4539	4558	4671
45°	4427	4423	4560
50°	4331	4364	4498
55°	4286	4267	4461
60°	4230	4223	4438
65°	4176	4045	4413
70°	4095	3862	4298
75°	3791	3429	3978
80°	3075	2796	3155
85°	1948	1751	1711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.1	4.3
10°-20°	575.3	10.9
20°-30°	776.9	14.7
30°-40°	889.7	16.8
40°-50°	911.3	17.2
50°-60°	826.9	15.6
60°-70°	645.4	12.2
70°-80°	366.0	6.9
80°-90°	76.8	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°	1582.3	29.9
0°-40°	2472.0	46.7
0°-60°	4210.2	79.5
0°-90°	5298.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5298.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2478	2478	2478	2478	2478	
5°	2475	2447	2471	2476	2468	231
15°	2069	2076	2024	2034	2012	578
25°	1672	1694	1706	1665	1670	772
35°	1417	1420	1417	1418	1417	888
45°	1163	1172	1162	1210	1198	900
55°	914	912	910	942	951	816
65°	656	642	635	665	693	650
75°	365	338	330	349	383	381
85°	63	57	57	53	55	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2477.5	2477.5	2477.5	2477.5	2477.5
2.5°	2493.0	2473.7	2456.9	2484.0	2481.4
5°	2475.0	2446.6	2471.1	2476.2	2468.5
7.5°	2427.3	2409.3	2410.5	2400.2	2398.9
10°	2302.3	2312.6	2292.0	2310.0	2301.0
12.5°	2195.4	2201.8	2165.7	2173.5	2163.2
15°	2069.1	2075.6	2024.0	2034.3	2012.4
17.5°	1931.3	1954.5	1911.9	1924.8	1901.6
20°	1828.2	1847.5	1848.8	1828.2	1754.8
22.5°	1747.0	1766.4	1781.8	1720.0	1712.2
25°	1672.3	1694.2	1705.8	1664.6	1669.7
27.5°	1597.6	1622.1	1622.1	1631.1	1619.5
30°	1543.5	1553.8	1537.0	1570.5	1560.2
32.5°	1479.0	1482.9	1468.7	1493.2	1457.1
35°	1417.2	1419.8	1417.2	1418.5	1417.2
37.5°	1357.9	1351.5	1363.1	1355.4	1379.8
40°	1292.2	1292.2	1297.4	1310.3	1329.6
42.5°	1231.7	1236.8	1230.4	1266.5	1274.2
45°	1163.4	1172.4	1162.1	1209.8	1198.2
47.5°	1101.6	1105.4	1102.8	1135.1	1137.6
50°	1034.6	1039.7	1042.3	1070.6	1074.5
52.5°	979.2	977.9	968.9	1010.1	1016.5
55°	913.5	912.2	909.6	941.8	950.8
57.5°	846.5	847.7	854.2	872.2	894.1
60°	785.9	779.5	784.6	806.5	824.6
62.5°	724.1	712.5	700.9	736.9	753.7
65°	655.8	641.6	635.2	664.8	693.1
67.5°	592.7	569.5	565.6	586.2	619.7
70°	520.5	492.2	490.9	506.3	546.3
72.5°	440.6	416.1	409.7	430.3	466.4
75°	364.6	337.6	329.8	349.1	382.6
77.5°	282.2	260.3	255.1	265.4	292.5
80°	198.4	185.5	180.4	184.2	203.6
82.5°	125.0	116.0	113.4	112.1	122.4
85°	63.1	56.7	56.7	52.8	55.4
87.5°	19.3	18.0	16.7	12.9	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)