

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: P485761

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4STD-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: P485761
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-LD4-4STD-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

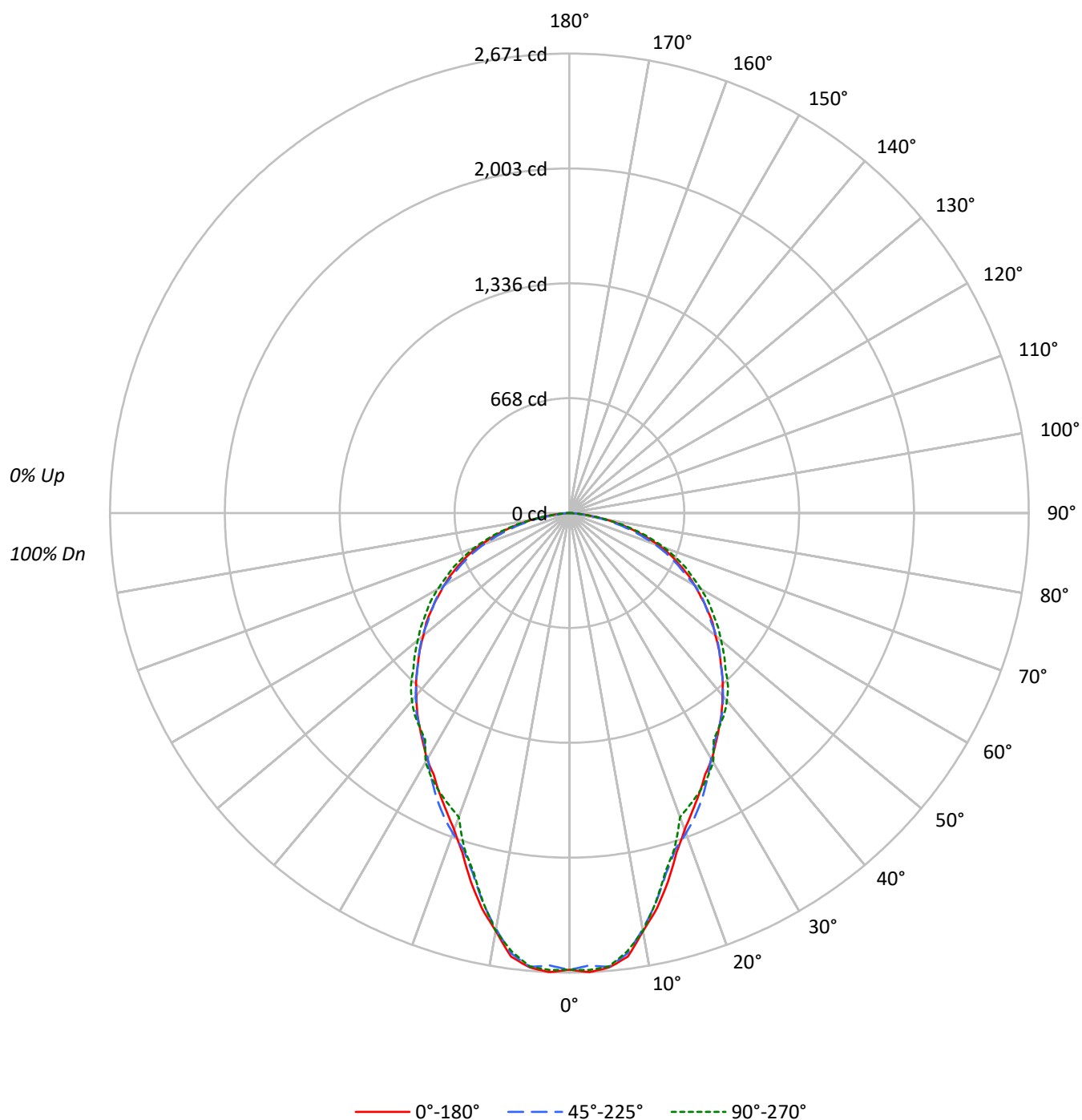
Lumens per Lamp: N/A
Luminaire Lumens: 5676.4 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7142	7142	7142
5°	7162	7151	7144
10°	6740	6710	6736
15°	6176	6041	6006
20°	5609	5672	5383
25°	5320	5426	5311
30°	5138	5116	5194
35°	4988	4988	4988
40°	4863	4882	5004
45°	4743	4738	4885
50°	4640	4675	4819
55°	4591	4572	4779
60°	4532	4524	4754
65°	4474	4333	4728
70°	4387	4138	4604
75°	4061	3673	4262
80°	3295	2994	3380
85°	2087	1874	1834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.5	4.3
10°-20°	616.3	10.9
20°-30°	832.3	14.7
30°-40°	953.1	16.8
40°-50°	976.3	17.2
50°-60°	885.9	15.6
60°-70°	691.4	12.2
70°-80°	392.1	6.9
80°-90°	82.3	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°	1695.2	29.9
0°-40°	2648.3	46.7
0°-60°	4510.5	79.5
0°-90°	5676.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5676.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2654	2654	2654	2654	2654	
5°	2652	2621	2647	2653	2645	248
15°	2217	2224	2168	2179	2156	620
25°	1792	1815	1828	1783	1789	827
35°	1518	1521	1518	1520	1518	951
45°	1246	1256	1245	1296	1284	964
55°	979	977	974	1009	1019	875
65°	703	687	680	712	743	696
75°	391	362	353	374	410	409
85°	68	61	61	57	59	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2654.2	2654.2	2654.2	2654.2	2654.2
2.5°	2670.8	2650.1	2632.2	2661.1	2658.4
5°	2651.5	2621.1	2647.3	2652.9	2644.6
7.5°	2600.4	2581.1	2582.5	2571.4	2570.0
10°	2466.5	2477.6	2455.5	2474.8	2465.1
12.5°	2352.0	2358.9	2320.2	2328.5	2317.5
15°	2216.7	2223.6	2168.4	2179.4	2156.0
17.5°	2069.0	2093.9	2048.3	2062.1	2037.3
20°	1958.6	1979.3	1980.7	1958.6	1879.9
22.5°	1871.6	1892.3	1908.9	1842.6	1834.4
25°	1791.6	1815.0	1827.5	1783.3	1788.8
27.5°	1711.5	1737.7	1737.7	1747.4	1735.0
30°	1653.6	1664.6	1646.6	1682.5	1671.5
32.5°	1584.5	1588.7	1573.5	1599.7	1561.1
35°	1518.3	1521.0	1518.3	1519.7	1518.3
37.5°	1454.8	1447.9	1460.3	1452.0	1478.3
40°	1384.4	1384.4	1389.9	1403.7	1424.4
42.5°	1319.5	1325.0	1318.1	1356.8	1365.1
45°	1246.4	1256.0	1245.0	1296.1	1283.6
47.5°	1180.1	1184.3	1181.5	1216.0	1218.8
50°	1108.3	1113.9	1116.6	1147.0	1151.1
52.5°	1049.0	1047.6	1038.0	1082.1	1089.0
55°	978.6	977.2	974.5	1009.0	1018.6
57.5°	906.8	908.2	915.1	934.4	957.9
60°	842.0	835.1	840.6	864.0	883.4
62.5°	775.7	763.3	750.9	789.5	807.5
65°	702.6	687.4	680.5	712.2	742.6
67.5°	634.9	610.1	605.9	628.0	663.9
70°	557.6	527.3	525.9	542.4	585.2
72.5°	472.0	445.8	438.9	461.0	499.7
75°	390.6	361.6	353.3	374.1	409.9
77.5°	302.3	278.8	273.3	284.3	313.3
80°	212.6	198.8	193.2	197.4	218.1
82.5°	133.9	124.2	121.5	120.1	131.1
85°	67.6	60.7	60.7	56.6	59.4
87.5°	20.7	19.3	17.9	13.8	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)