

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: P485738

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-30-120-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: P485738
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-LD4-4HI-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

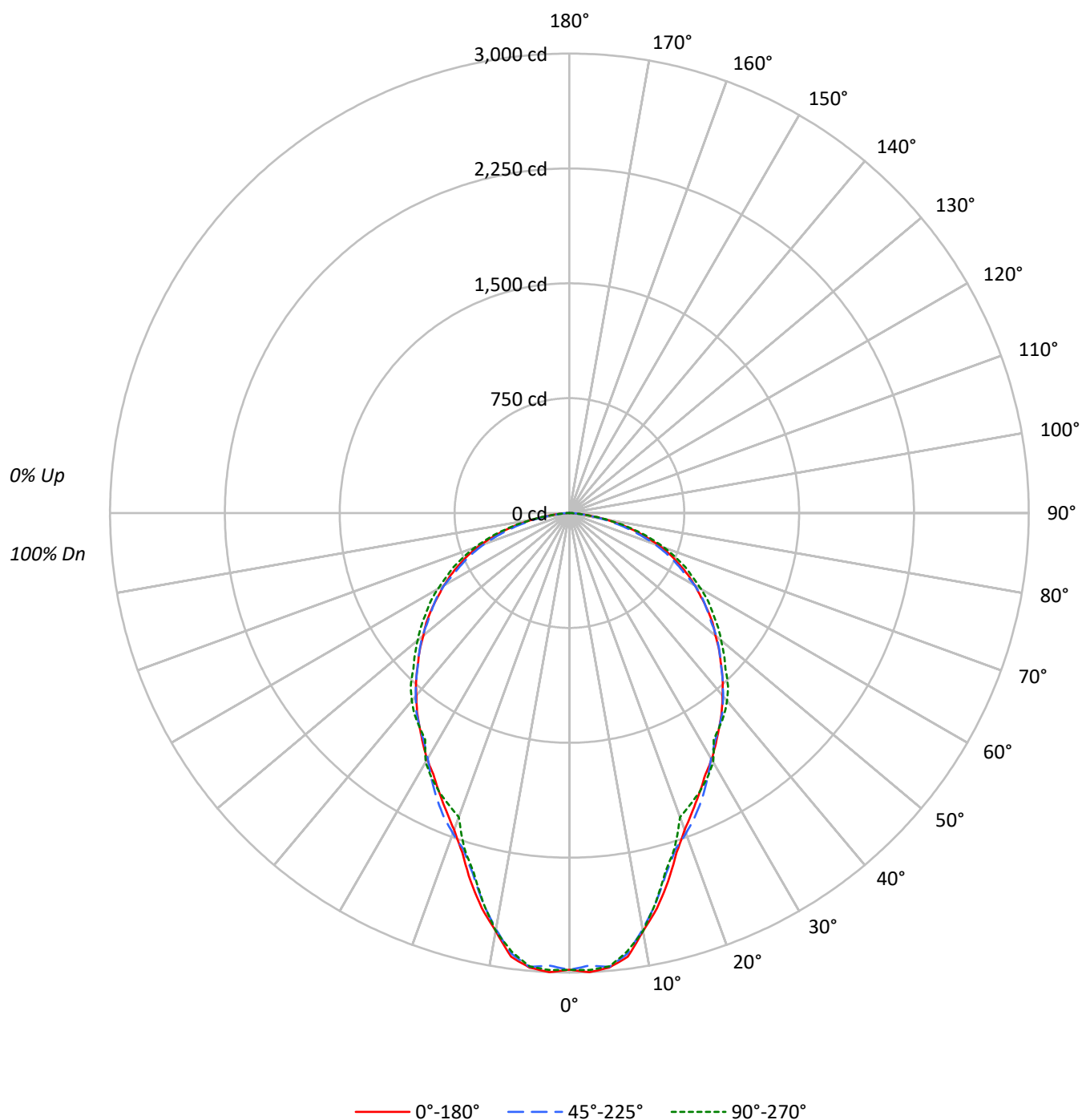
Lumens per Lamp: N/A
Luminaire Lumens: 6377.2 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	8024	8024	8024
5°	8047	8034	8026
10°	7572	7538	7568
15°	6938	6787	6748
20°	6301	6372	6048
25°	5976	6096	5967
30°	5772	5748	5835
35°	5603	5603	5603
40°	5463	5485	5622
45°	5329	5323	5488
50°	5213	5252	5414
55°	5158	5136	5369
60°	5091	5083	5341
65°	5026	4868	5312
70°	4929	4648	5173
75°	4562	4128	4788
80°	3701	3364	3797
85°	2347	2106	2059



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.0	4.3
10°-20°	692.4	10.9
20°-30°	935.1	14.7
30°-40°	1070.8	16.8
40°-50°	1096.9	17.2
50°-60°	995.3	15.6
60°-70°	776.8	12.2
70°-80°	440.6	6.9
80°-90°	92.5	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°	1904.5	29.9
0°-40°	2975.3	46.7
0°-60°	5067.4	79.5
0°-90°	6377.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6377.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2982	2982	2982	2982	2982	
5°	2979	2945	2974	2980	2971	278
15°	2490	2498	2436	2448	2422	696
25°	2013	2039	2053	2004	2010	929
35°	1706	1709	1706	1707	1706	1068
45°	1400	1411	1399	1456	1442	1083
55°	1099	1098	1095	1134	1144	983
65°	789	772	764	800	834	782
75°	439	406	397	420	460	459
85°	76	68	68	64	67	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2981.9	2981.9	2981.9	2981.9	2981.9
2.5°	3000.5	2977.3	2957.1	2989.7	2986.6
5°	2978.8	2944.7	2974.2	2980.4	2971.1
7.5°	2921.5	2899.7	2901.3	2888.9	2887.3
10°	2771.0	2783.4	2758.6	2780.3	2769.5
12.5°	2642.3	2650.1	2606.7	2616.0	2603.6
15°	2490.4	2498.1	2436.1	2448.5	2422.1
17.5°	2324.4	2352.4	2301.2	2316.7	2288.8
20°	2200.4	2223.7	2225.2	2200.4	2112.0
22.5°	2102.7	2126.0	2144.6	2070.1	2060.8
25°	2012.8	2039.1	2053.1	2003.5	2009.7
27.5°	1922.8	1952.3	1952.3	1963.1	1949.2
30°	1857.7	1870.1	1849.9	1890.3	1877.9
32.5°	1780.2	1784.8	1767.8	1797.2	1753.8
35°	1705.7	1708.8	1705.7	1707.3	1705.7
37.5°	1634.4	1626.6	1640.6	1631.3	1660.8
40°	1555.3	1555.3	1561.5	1577.0	1600.3
42.5°	1482.4	1488.6	1480.9	1524.3	1533.6
45°	1400.2	1411.1	1398.7	1456.1	1442.1
47.5°	1325.8	1330.5	1327.4	1366.1	1369.2
50°	1245.2	1251.4	1254.5	1288.6	1293.3
52.5°	1178.5	1177.0	1166.1	1215.7	1223.5
55°	1099.4	1097.9	1094.8	1133.5	1144.4
57.5°	1018.8	1020.3	1028.1	1049.8	1076.2
60°	945.9	938.2	944.4	970.7	992.4
62.5°	871.5	857.5	843.6	887.0	907.1
65°	789.3	772.2	764.5	800.1	834.3
67.5°	713.3	685.4	680.7	705.6	745.9
70°	626.5	592.4	590.8	609.4	657.5
72.5°	530.3	500.9	493.1	517.9	561.3
75°	438.8	406.3	397.0	420.2	460.5
77.5°	339.6	313.2	307.0	319.4	352.0
80°	238.8	223.3	217.1	221.7	245.0
82.5°	150.4	139.6	136.5	134.9	147.3
85°	76.0	68.2	68.2	63.6	66.7
87.5°	23.3	21.7	20.2	15.5	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)