

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: P485770

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-20-120-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: P485770
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-LD4-5HI-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

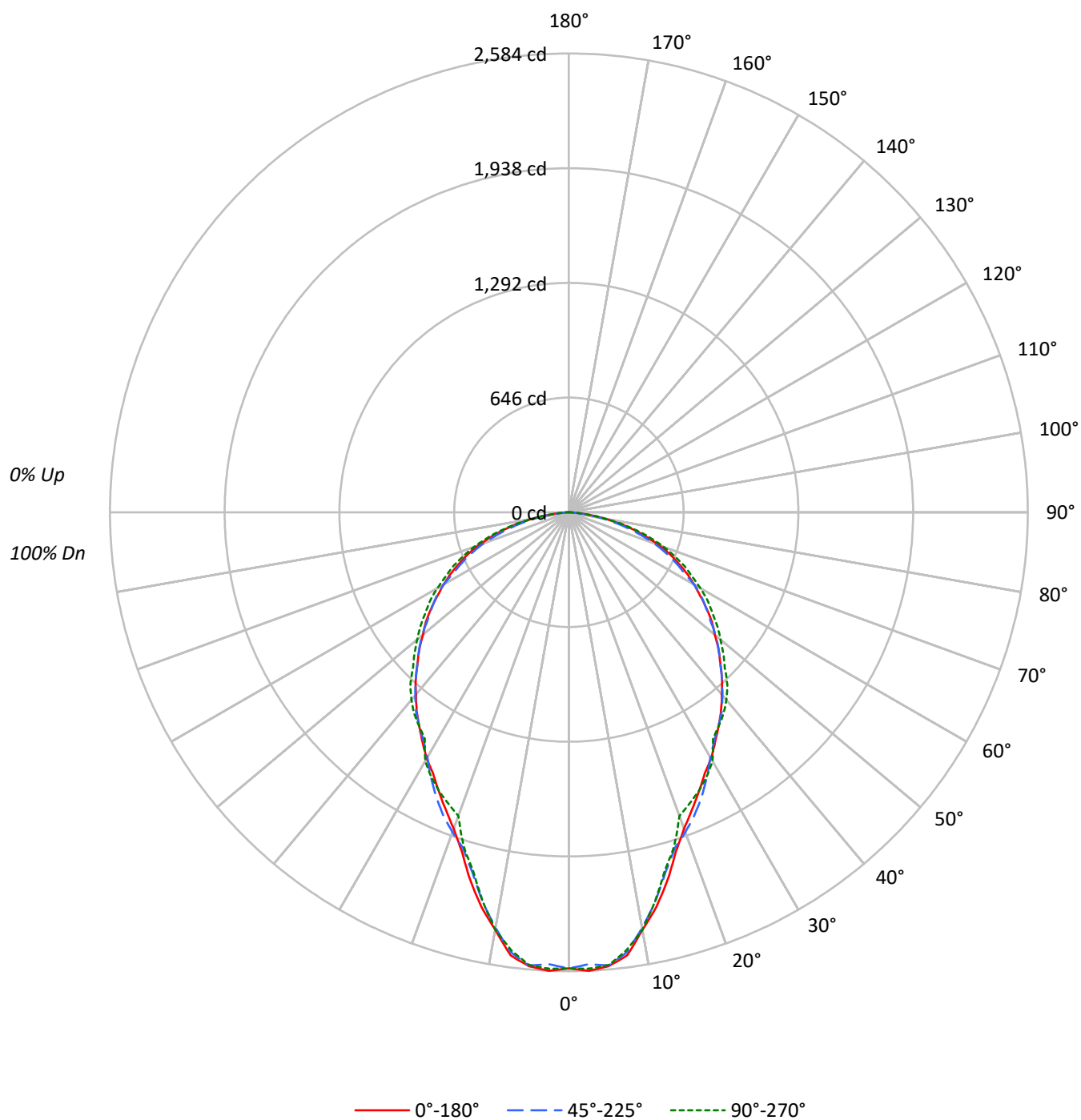
Lumens per Lamp: N/A
Luminaire Lumens: 5493.0 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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°	6912	6912	6912
5°	6931	6920	6913
10°	6522	6493	6518
15°	5976	5846	5812
20°	5428	5489	5210
25°	5148	5251	5140
30°	4972	4951	5026
35°	4826	4826	4826
40°	4706	4725	4842
45°	4590	4585	4727
50°	4490	4524	4663
55°	4443	4424	4624
60°	4385	4378	4600
65°	4329	4193	4576
70°	4246	4004	4456
75°	3930	3555	4125
80°	3188	2898	3270
85°	2019	1815	1772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.6	4.3
10°-20°	596.4	10.9
20°-30°	805.4	14.7
30°-40°	922.3	16.8
40°-50°	944.8	17.2
50°-60°	857.3	15.6
60°-70°	669.1	12.2
70°-80°	379.5	6.9
80°-90°	79.7	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°	1640.4	29.9
0°-40°	2562.7	46.7
0°-60°	4364.8	79.5
0°-90°	5493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2568	2568	2568	2568	2568	
5°	2566	2536	2562	2567	2559	240
15°	2145	2152	2098	2109	2086	600
25°	1734	1756	1768	1726	1731	800
35°	1469	1472	1469	1471	1469	920
45°	1206	1216	1205	1254	1242	933
55°	947	946	943	976	986	846
65°	680	665	658	689	719	674
75°	378	350	342	362	397	395
85°	65	59	59	55	57	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2568.5	2568.5	2568.5	2568.5	2568.5
2.5°	2584.5	2564.5	2547.1	2575.2	2572.5
5°	2565.8	2536.4	2561.8	2567.1	2559.1
7.5°	2516.4	2497.7	2499.0	2488.3	2487.0
10°	2386.8	2397.5	2376.1	2394.8	2385.5
12.5°	2276.0	2282.6	2245.3	2253.3	2242.6
15°	2145.1	2151.8	2098.3	2109.0	2086.3
17.5°	2002.2	2026.2	1982.1	1995.5	1971.4
20°	1895.3	1915.3	1916.7	1895.3	1819.2
22.5°	1811.2	1831.2	1847.2	1783.1	1775.1
25°	1733.7	1756.4	1768.4	1725.7	1731.0
27.5°	1656.2	1681.6	1681.6	1691.0	1678.9
30°	1600.1	1610.8	1593.4	1628.2	1617.5
32.5°	1533.3	1537.3	1522.7	1548.0	1510.6
35°	1469.2	1471.9	1469.2	1470.6	1469.2
37.5°	1407.8	1401.1	1413.1	1405.1	1430.5
40°	1339.7	1339.7	1345.0	1358.4	1378.4
42.5°	1276.9	1282.2	1275.6	1313.0	1321.0
45°	1206.1	1215.5	1204.8	1254.2	1242.2
47.5°	1142.0	1146.0	1143.3	1176.7	1179.4
50°	1072.5	1077.9	1080.6	1109.9	1113.9
52.5°	1015.1	1013.8	1004.4	1047.2	1053.8
55°	947.0	945.7	943.0	976.4	985.7
57.5°	877.5	878.9	885.5	904.2	927.0
60°	814.8	808.1	813.4	836.1	854.8
62.5°	750.6	738.6	726.6	764.0	781.4
65°	679.9	665.2	658.5	689.2	718.6
67.5°	614.4	590.4	586.4	607.7	642.5
70°	539.6	510.2	508.9	524.9	566.3
72.5°	456.8	431.4	424.7	446.1	483.5
75°	378.0	349.9	341.9	362.0	396.7
77.5°	292.5	269.8	264.5	275.1	303.2
80°	205.7	192.3	187.0	191.0	211.0
82.5°	129.6	120.2	117.5	116.2	126.9
85°	65.4	58.8	58.8	54.8	57.4
87.5°	20.0	18.7	17.4	13.4	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)