

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: P485040

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2STD-27-120-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: P485040
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-12-4-INS-89BC-LD4-2STD-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

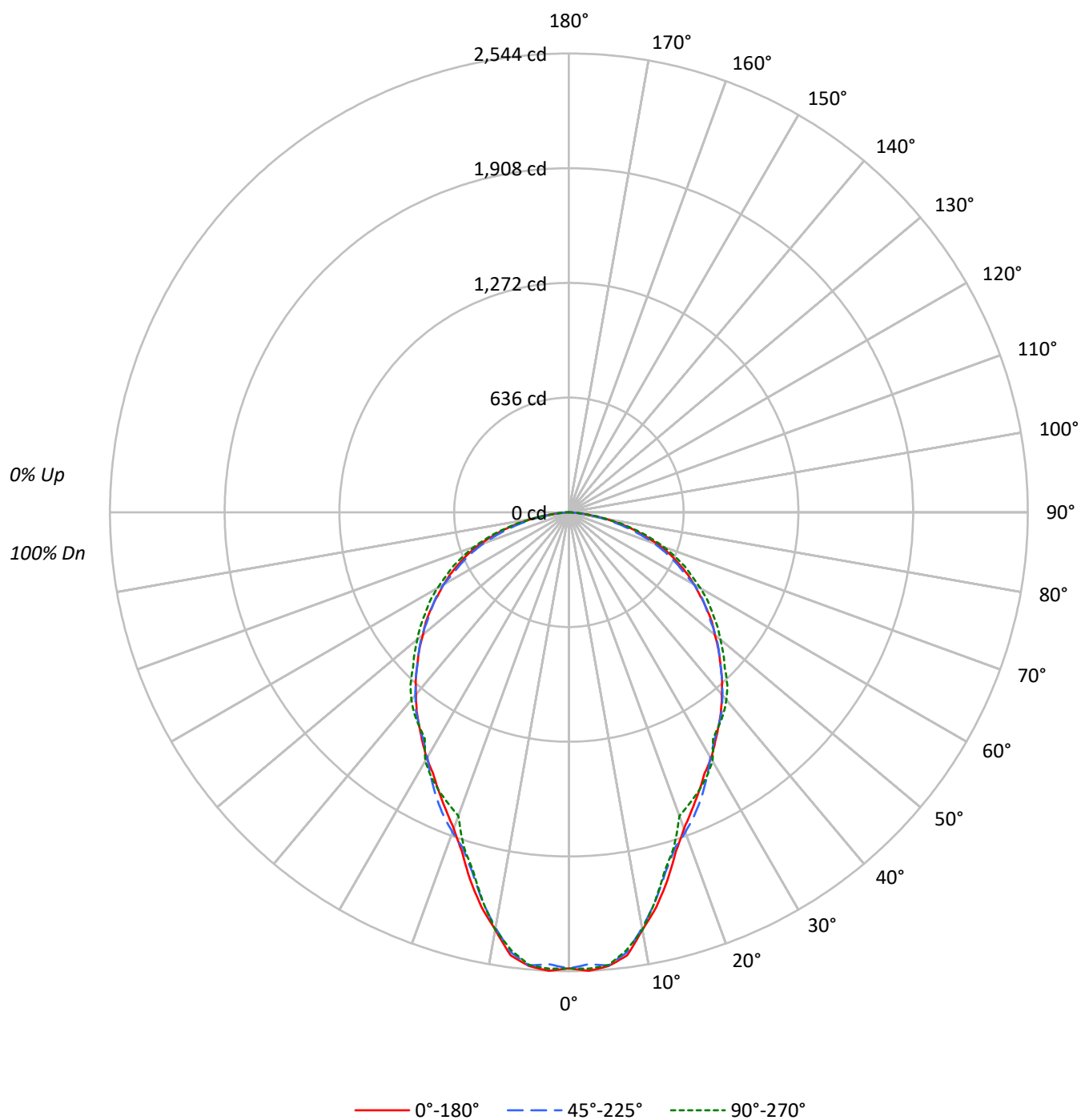
Lumens per Lamp: N/A
Luminaire Lumens: 5407.5 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6804	6804	6804
5°	6823	6812	6805
10°	6421	6392	6417
15°	5883	5755	5722
20°	5343	5403	5129
25°	5067	5169	5060
30°	4895	4874	4948
35°	4752	4752	4752
40°	4633	4651	4767
45°	4518	4513	4654
50°	4420	4453	4591
55°	4373	4355	4553
60°	4317	4310	4529
65°	4262	4127	4504
70°	4179	3942	4386
75°	3869	3500	4060
80°	3138	2853	3220
85°	1988	1788	1744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.8	4.3
10°-20°	587.1	10.9
20°-30°	792.9	14.7
30°-40°	908.0	16.8
40°-50°	930.1	17.2
50°-60°	843.9	15.6
60°-70°	658.7	12.2
70°-80°	373.6	6.9
80°-90°	78.4	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°	1614.9	29.9
0°-40°	2522.9	46.7
0°-60°	4296.8	79.5
0°-90°	5407.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5407.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2528	2528	2528	2528	2528	
5°	2526	2497	2522	2527	2519	236
15°	2112	2118	2066	2076	2054	590
25°	1707	1729	1741	1699	1704	788
35°	1446	1449	1446	1448	1446	906
45°	1187	1196	1186	1235	1223	918
55°	932	931	928	961	970	833
65°	669	655	648	678	707	663
75°	372	344	337	356	390	389
85°	64	58	58	54	56	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2528.5	2528.5	2528.5	2528.5	2528.5
2.5°	2544.3	2524.6	2507.5	2535.1	2532.4
5°	2525.9	2496.9	2521.9	2527.2	2519.3
7.5°	2477.2	2458.8	2460.1	2449.6	2448.3
10°	2349.7	2360.2	2339.2	2357.6	2348.4
12.5°	2240.5	2247.1	2210.3	2218.2	2207.7
15°	2111.7	2118.3	2065.7	2076.2	2053.8
17.5°	1971.0	1994.7	1951.3	1964.4	1940.8
20°	1865.8	1885.5	1886.8	1865.8	1790.9
22.5°	1783.0	1802.7	1818.5	1755.4	1747.5
25°	1706.7	1729.1	1740.9	1698.8	1704.1
27.5°	1630.4	1655.4	1655.4	1664.6	1652.8
30°	1575.2	1585.7	1568.6	1602.8	1592.3
32.5°	1509.5	1513.4	1499.0	1523.9	1487.1
35°	1446.4	1449.0	1446.4	1447.7	1446.4
37.5°	1385.9	1379.3	1391.1	1383.2	1408.2
40°	1318.8	1318.8	1324.1	1337.2	1356.9
42.5°	1257.0	1262.3	1255.7	1292.5	1300.4
45°	1187.3	1196.5	1186.0	1234.7	1222.8
47.5°	1124.2	1128.2	1125.5	1158.4	1161.0
50°	1055.8	1061.1	1063.7	1092.7	1096.6
52.5°	999.3	998.0	988.8	1030.9	1037.4
55°	932.2	930.9	928.3	961.2	970.4
57.5°	863.9	865.2	871.8	890.2	912.5
60°	802.1	795.5	800.8	823.1	841.5
62.5°	739.0	727.1	715.3	752.1	769.2
65°	669.3	654.8	648.2	678.5	707.4
67.5°	604.8	581.2	577.2	598.3	632.5
70°	531.2	502.3	501.0	516.7	557.5
72.5°	449.7	424.7	418.1	439.2	476.0
75°	372.1	344.5	336.6	356.3	390.5
77.5°	288.0	265.6	260.3	270.9	298.5
80°	202.5	189.3	184.1	188.0	207.8
82.5°	127.5	118.3	115.7	114.4	124.9
85°	64.4	57.9	57.9	53.9	56.5
87.5°	19.7	18.4	17.1	13.1	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)