

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: P485036

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-50-120-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: P485036
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-LD4-2LO-50-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

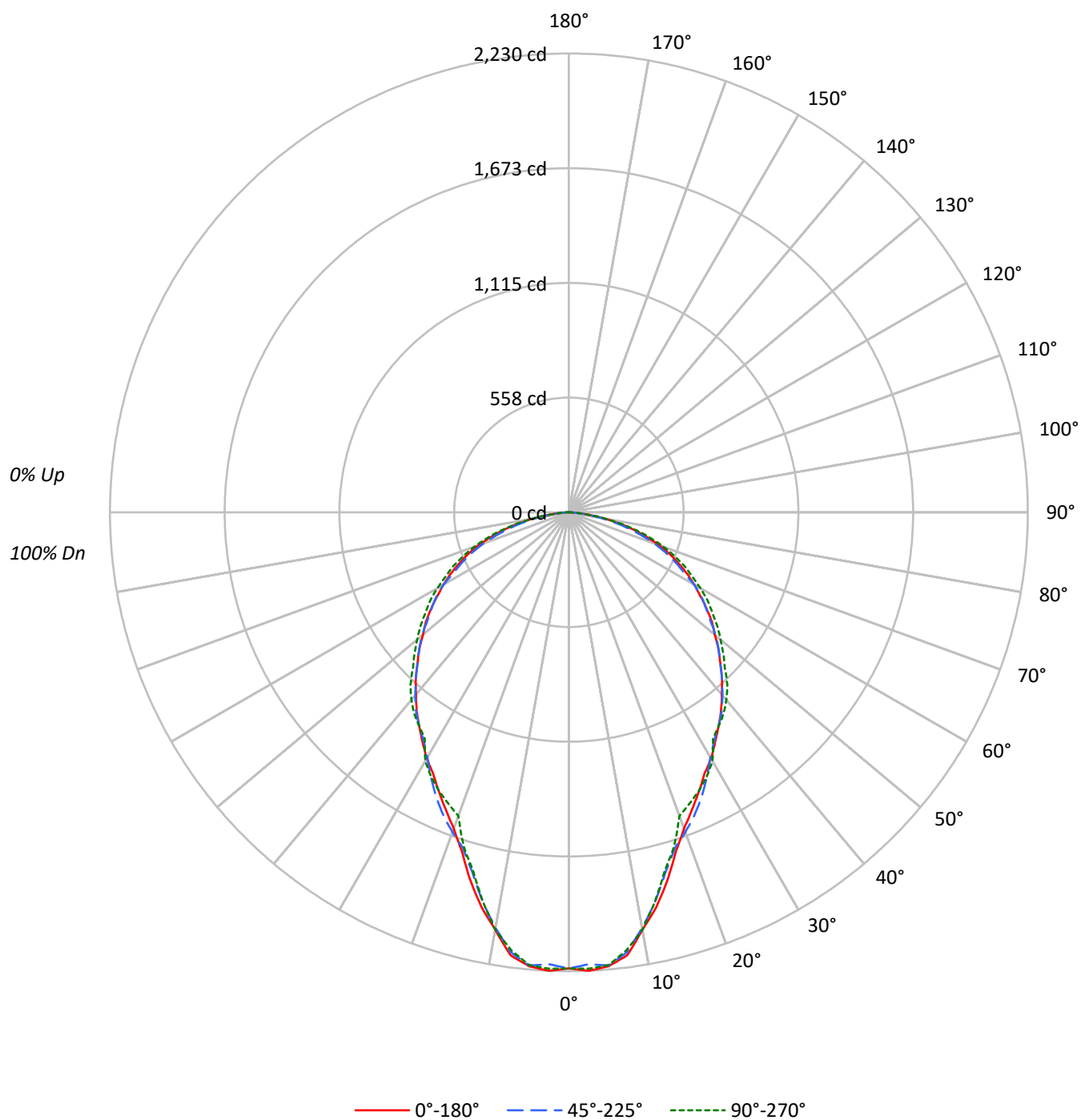
Lumens per Lamp: N/A
Luminaire Lumens: 4740.2 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5965	5965	5965
5°	5981	5972	5965
10°	5628	5603	5625
15°	5157	5045	5016
20°	4684	4737	4496
25°	4442	4531	4435
30°	4291	4273	4337
35°	4165	4165	4165
40°	4061	4077	4179
45°	3961	3957	4079
50°	3875	3904	4024
55°	3834	3818	3991
60°	3784	3778	3970
65°	3736	3618	3948
70°	3664	3455	3845
75°	3392	3068	3559
80°	2751	2501	2822
85°	1744	1565	1531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.9	4.3
10°-20°	514.7	10.9
20°-30°	695.1	14.7
30°-40°	796.0	16.8
40°-50°	815.3	17.2
50°-60°	739.8	15.6
60°-70°	577.4	12.2
70°-80°	327.5	6.9
80°-90°	68.7	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°	1415.6	29.9
0°-40°	2211.5	46.7
0°-60°	3766.6	79.5
0°-90°	4740.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4740.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2216	2216	2216	2216	2216	
5°	2214	2189	2211	2215	2208	207
15°	1851	1857	1811	1820	1800	517
25°	1496	1516	1526	1489	1494	690
35°	1268	1270	1268	1269	1268	794
45°	1041	1049	1040	1082	1072	805
55°	817	816	814	843	851	730
65°	587	574	568	595	620	581
75°	326	302	295	312	342	341
85°	56	51	51	47	50	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2216.5	2216.5	2216.5	2216.5	2216.5
2.5°	2230.3	2213.0	2198.0	2222.2	2219.9
5°	2214.2	2188.8	2210.7	2215.3	2208.4
7.5°	2171.5	2155.4	2156.5	2147.3	2146.2
10°	2059.7	2068.9	2050.5	2066.6	2058.6
12.5°	1964.1	1969.8	1937.5	1944.5	1935.2
15°	1851.1	1856.9	1810.8	1820.0	1800.4
17.5°	1727.8	1748.5	1710.5	1722.0	1701.3
20°	1635.6	1652.8	1654.0	1635.6	1569.9
22.5°	1562.9	1580.2	1594.1	1538.7	1531.8
25°	1496.1	1515.7	1526.1	1489.2	1493.8
27.5°	1429.2	1451.1	1451.1	1459.2	1448.8
30°	1380.8	1390.1	1375.1	1405.0	1395.8
32.5°	1323.2	1326.7	1314.0	1335.9	1303.6
35°	1267.9	1270.2	1267.9	1269.0	1267.9
37.5°	1214.9	1209.1	1219.5	1212.6	1234.5
40°	1156.1	1156.1	1160.7	1172.2	1189.5
42.5°	1101.9	1106.5	1100.7	1133.0	1139.9
45°	1040.8	1048.9	1039.7	1082.3	1071.9
47.5°	985.5	988.9	986.6	1015.5	1017.8
50°	925.5	930.2	932.5	957.8	961.3
52.5°	876.0	874.8	866.8	903.7	909.4
55°	817.2	816.1	813.7	842.6	850.6
57.5°	757.3	758.4	764.2	780.3	799.9
60°	703.1	697.3	701.9	721.5	737.7
62.5°	647.8	637.4	627.0	659.3	674.3
65°	586.7	574.0	568.2	594.7	620.1
67.5°	530.2	509.5	506.0	524.4	554.4
70°	465.7	440.3	439.1	453.0	488.7
72.5°	394.2	372.3	366.5	385.0	417.2
75°	326.2	302.0	295.1	312.4	342.3
77.5°	252.4	232.8	228.2	237.4	261.6
80°	177.5	166.0	161.4	164.8	182.1
82.5°	111.8	103.7	101.4	100.3	109.5
85°	56.5	50.7	50.7	47.3	49.6
87.5°	17.3	16.1	15.0	11.5	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)