

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: P485028

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-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: P485028
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-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

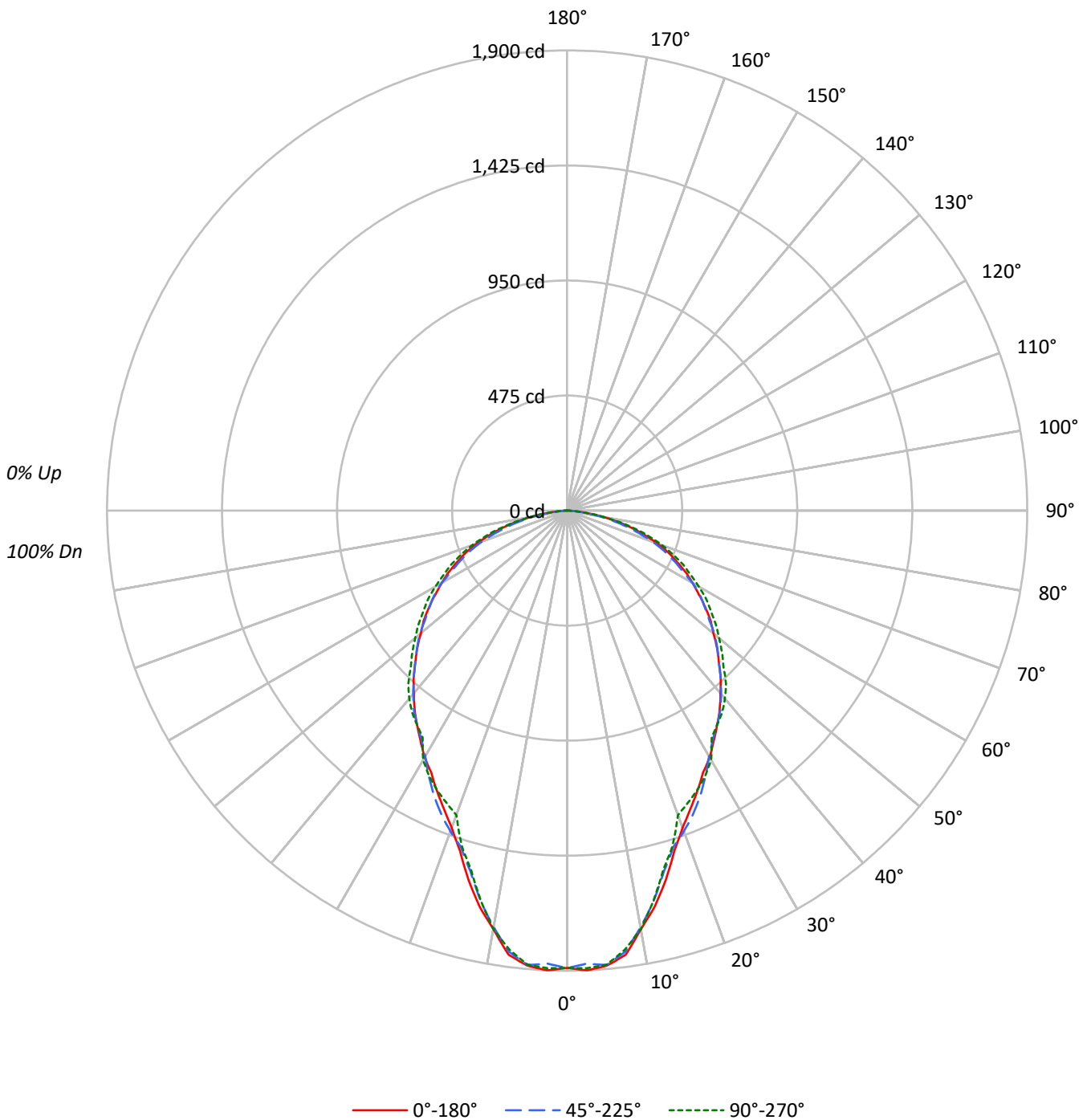
Lumens per Lamp: N/A
Luminaire Lumens: 4038.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5081	5081	5081
5°	5095	5087	5082
10°	4794	4773	4792
15°	4393	4297	4273
20°	3990	4035	3830
25°	3784	3860	3778
30°	3655	3640	3695
35°	3548	3548	3548
40°	3459	3473	3560
45°	3374	3370	3475
50°	3301	3325	3428
55°	3266	3252	3400
60°	3223	3218	3382
65°	3182	3082	3363
70°	3121	2943	3275
75°	2889	2614	3032
80°	2343	2131	2404
85°	1485	1334	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.4	4.3
10°-20°	438.4	10.9
20°-30°	592.1	14.7
30°-40°	678.0	16.8
40°-50°	694.5	17.2
50°-60°	630.2	15.6
60°-70°	491.9	12.2
70°-80°	279.0	6.9
80°-90°	58.6	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°	1205.9	29.9
0°-40°	1883.9	46.7
0°-60°	3208.6	79.5
0°-90°	4038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1888	1888	1888	1888	1888	
5°	1886	1865	1883	1887	1881	176
15°	1577	1582	1542	1550	1534	441
25°	1274	1291	1300	1269	1272	588
35°	1080	1082	1080	1081	1080	677
45°	887	894	886	922	913	686
55°	696	695	693	718	725	622
65°	500	489	484	507	528	495
75°	278	257	251	266	292	291
85°	48	43	43	40	42	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1888.1	1888.1	1888.1	1888.1	1888.1
2.5°	1899.9	1885.2	1872.4	1893.0	1891.1
5°	1886.2	1864.6	1883.2	1887.2	1881.3
7.5°	1849.8	1836.1	1837.1	1829.2	1828.2
10°	1754.6	1762.5	1746.7	1760.5	1753.6
12.5°	1673.1	1678.0	1650.5	1656.4	1648.6
15°	1576.9	1581.8	1542.5	1550.4	1533.7
17.5°	1471.8	1489.5	1457.1	1466.9	1449.2
20°	1393.3	1408.0	1409.0	1393.3	1337.3
22.5°	1331.4	1346.1	1357.9	1310.8	1304.9
25°	1274.5	1291.2	1300.0	1268.6	1272.5
27.5°	1217.5	1236.2	1236.2	1243.0	1234.2
30°	1176.3	1184.1	1171.4	1196.9	1189.0
32.5°	1127.2	1130.1	1119.3	1138.0	1110.5
35°	1080.1	1082.0	1080.1	1081.0	1080.1
37.5°	1034.9	1030.0	1038.8	1032.9	1051.6
40°	984.8	984.8	988.7	998.6	1013.3
42.5°	938.7	942.6	937.7	965.2	971.1
45°	886.6	893.5	885.6	922.0	913.1
47.5°	839.5	842.4	840.5	865.0	867.0
50°	788.4	792.4	794.3	815.9	818.9
52.5°	746.2	745.2	738.4	769.8	774.7
55°	696.1	695.2	693.2	717.7	724.6
57.5°	645.1	646.1	651.0	664.7	681.4
60°	598.9	594.0	598.0	614.7	628.4
62.5°	551.8	543.0	534.1	561.6	574.4
65°	499.8	489.0	484.1	506.6	528.2
67.5°	451.7	434.0	431.0	446.8	472.3
70°	396.7	375.1	374.1	385.9	416.3
72.5°	335.8	317.1	312.2	327.9	355.4
75°	277.9	257.2	251.4	266.1	291.6
77.5°	215.0	198.3	194.4	202.3	222.9
80°	151.2	141.4	137.5	140.4	155.1
82.5°	95.2	88.4	86.4	85.4	93.3
85°	48.1	43.2	43.2	40.3	42.2
87.5°	14.7	13.7	12.8	9.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)