

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: P485032

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-35-120-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: P485032
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-35-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

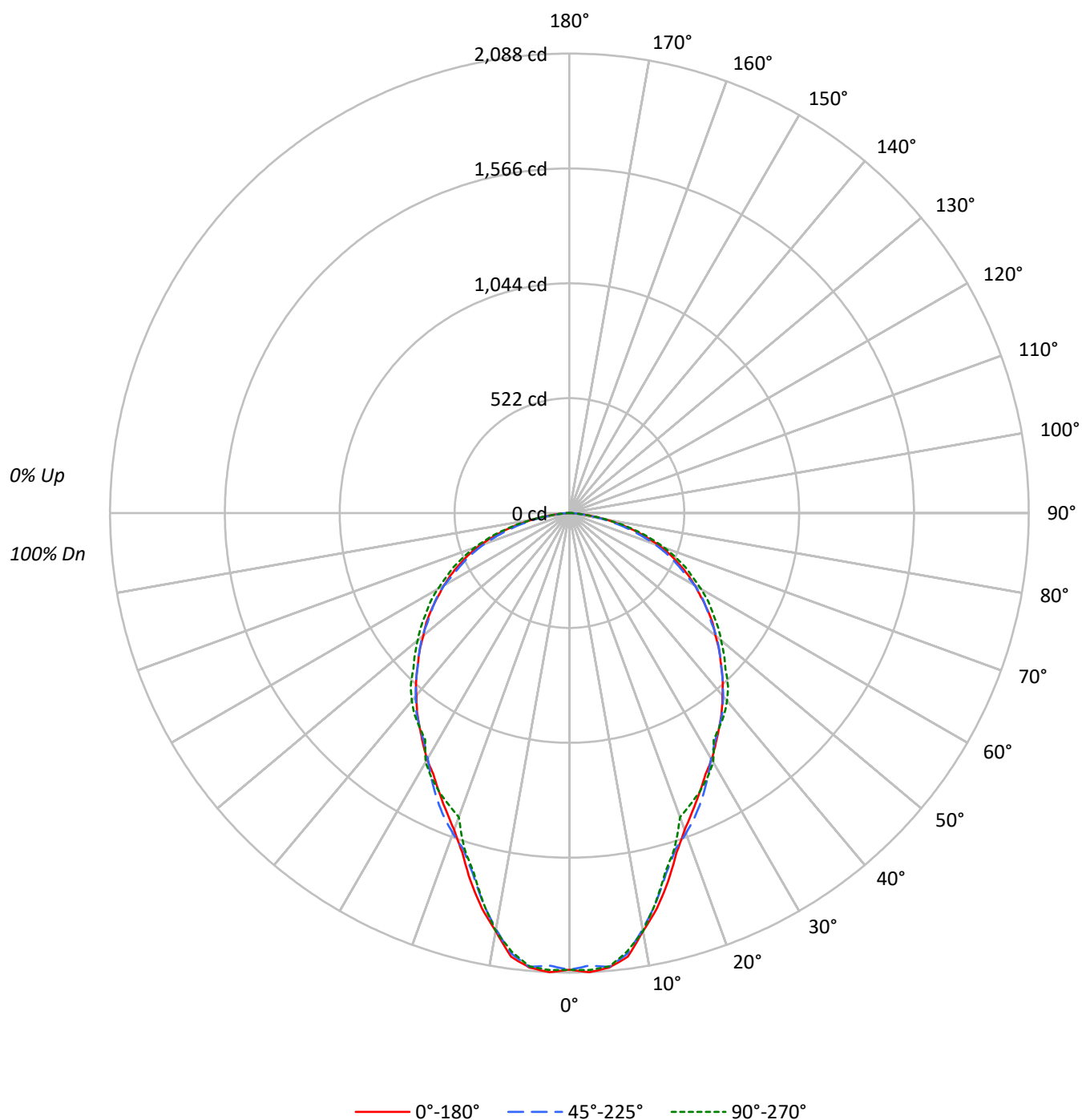
Lumens per Lamp: N/A
Luminaire Lumens: 4438.6 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5585	5585	5585
5°	5601	5592	5586
10°	5270	5246	5267
15°	4829	4724	4696
20°	4386	4435	4210
25°	4160	4243	4153
30°	4018	4001	4061
35°	3900	3900	3900
40°	3803	3818	3913
45°	3709	3705	3820
50°	3628	3655	3768
55°	3590	3575	3737
60°	3543	3538	3717
65°	3498	3388	3698
70°	3430	3235	3600
75°	3175	2873	3332
80°	2576	2342	2642
85°	1633	1467	1433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.8	4.3
10°-20°	481.9	10.9
20°-30°	650.8	14.7
30°-40°	745.3	16.8
40°-50°	763.4	17.2
50°-60°	692.7	15.6
60°-70°	540.6	12.2
70°-80°	306.6	6.9
80°-90°	64.4	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°	1325.5	29.9
0°-40°	2070.8	46.7
0°-60°	3527.0	79.5
0°-90°	4438.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4438.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2076	2076	2076	2076	2076	
5°	2073	2050	2070	2074	2068	194
15°	1733	1739	1696	1704	1686	484
25°	1401	1419	1429	1394	1399	646
35°	1187	1189	1187	1188	1187	744
45°	975	982	974	1013	1004	754
55°	765	764	762	789	796	684
65°	549	538	532	557	581	544
75°	305	283	276	292	320	320
85°	53	48	48	44	46	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2075.5	2075.5	2075.5	2075.5	2075.5
2.5°	2088.4	2072.2	2058.2	2080.8	2078.7
5°	2073.3	2049.6	2070.1	2074.4	2067.9
7.5°	2033.4	2018.3	2019.3	2010.7	2009.6
10°	1928.7	1937.3	1920.0	1935.1	1927.6
12.5°	1839.1	1844.5	1814.3	1820.7	1812.1
15°	1733.3	1738.7	1695.5	1704.2	1685.8
17.5°	1617.8	1637.3	1601.6	1612.4	1593.0
20°	1531.5	1547.7	1548.8	1531.5	1470.0
22.5°	1463.5	1479.7	1492.6	1440.8	1434.4
25°	1400.9	1419.3	1429.0	1394.4	1398.7
27.5°	1338.3	1358.8	1358.8	1366.4	1356.7
30°	1293.0	1301.6	1287.6	1315.6	1307.0
32.5°	1239.0	1242.2	1230.4	1250.9	1220.7
35°	1187.2	1189.4	1187.2	1188.3	1187.2
37.5°	1137.6	1132.2	1141.9	1135.4	1155.9
40°	1082.5	1082.5	1086.8	1097.6	1113.8
42.5°	1031.8	1036.1	1030.7	1060.9	1067.4
45°	974.6	982.1	973.5	1013.4	1003.7
47.5°	922.8	926.0	923.9	950.8	953.0
50°	866.7	871.0	873.1	896.9	900.1
52.5°	820.3	819.2	811.6	846.2	851.6
55°	765.2	764.1	762.0	789.0	796.5
57.5°	709.1	710.2	715.6	730.7	749.0
60°	658.4	653.0	657.3	675.6	690.7
62.5°	606.6	596.8	587.1	617.3	631.4
65°	549.4	537.5	532.1	556.9	580.7
67.5°	496.5	477.0	473.8	491.1	519.1
70°	436.0	412.3	411.2	424.2	457.6
72.5°	369.1	348.6	343.2	360.5	390.7
75°	305.4	282.8	276.3	292.5	320.5
77.5°	236.4	218.0	213.7	222.3	245.0
80°	166.2	155.4	151.1	154.3	170.5
82.5°	104.7	97.1	95.0	93.9	102.5
85°	52.9	47.5	47.5	44.3	46.4
87.5°	16.2	15.1	14.0	10.8	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)