

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: P485034

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-40-120-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: P485034
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-40-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

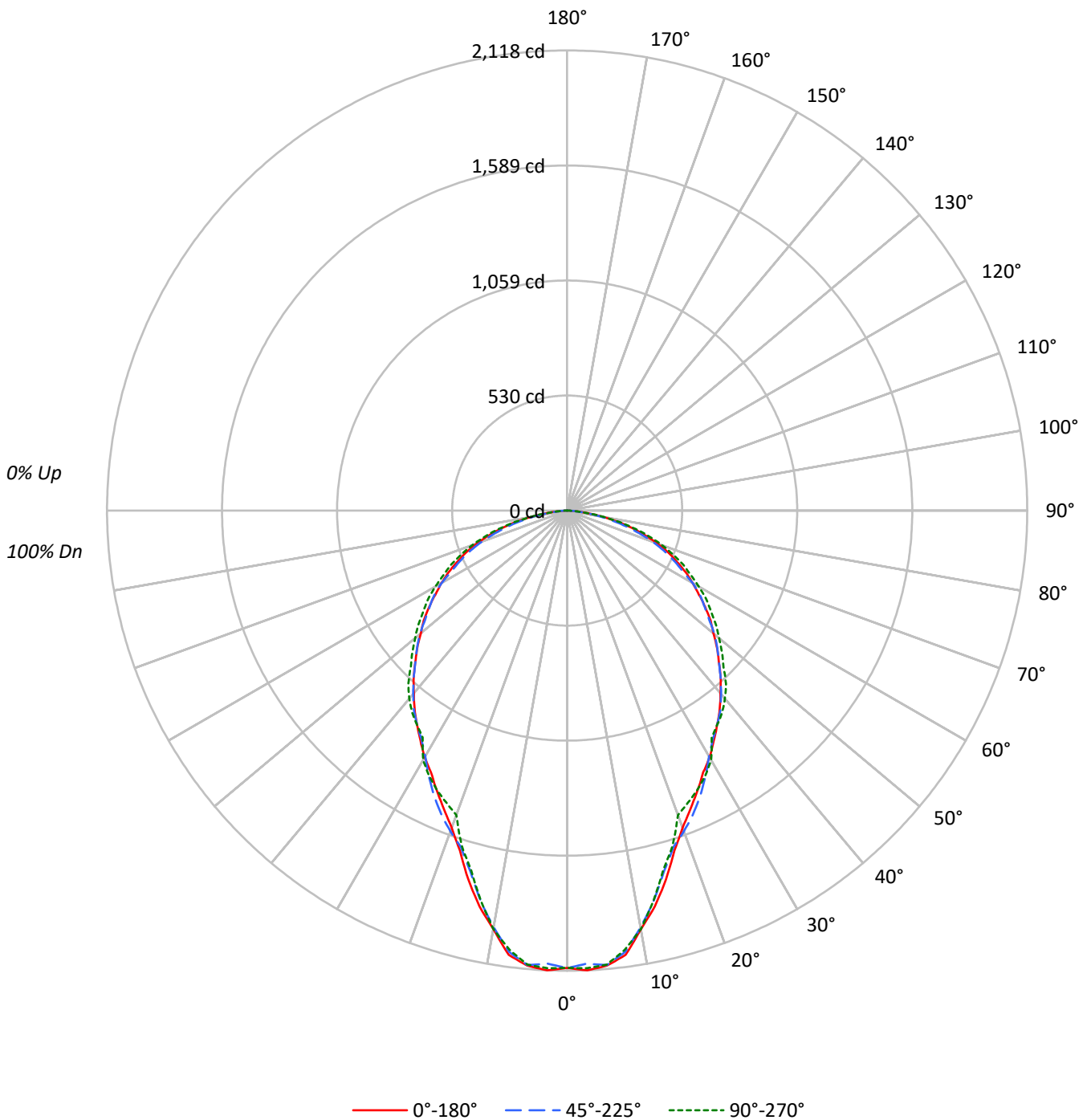
Lumens per Lamp: N/A
Luminaire Lumens: 4501.6 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5664	5664	5664
5°	5680	5671	5665
10°	5345	5321	5342
15°	4897	4791	4763
20°	4448	4498	4269
25°	4219	4303	4212
30°	4075	4058	4119
35°	3956	3956	3956
40°	3857	3872	3968
45°	3761	3757	3874
50°	3680	3707	3822
55°	3641	3626	3790
60°	3594	3588	3770
65°	3548	3436	3750
70°	3479	3281	3651
75°	3221	2913	3380
80°	2613	2374	2679
85°	1655	1488	1454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.5	4.3
10°-20°	488.8	10.9
20°-30°	660.1	14.7
30°-40°	755.9	16.8
40°-50°	774.3	17.2
50°-60°	702.5	15.6
60°-70°	548.3	12.2
70°-80°	311.0	6.9
80°-90°	65.3	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°	1344.3	29.9
0°-40°	2100.2	46.7
0°-60°	3577.0	79.5
0°-90°	4501.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4501.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2103	2079	2099	2104	2097	196
15°	1758	1763	1720	1728	1710	491
25°	1421	1439	1449	1414	1419	656
35°	1204	1206	1204	1205	1204	754
45°	988	996	987	1028	1018	764
55°	776	775	773	800	808	694
65°	557	545	540	565	589	552
75°	310	287	280	297	325	324
85°	54	48	48	45	47	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2104.9	2104.9	2104.9	2104.9	2104.9
2.5°	2118.0	2101.6	2087.4	2110.4	2108.2
5°	2102.7	2078.6	2099.4	2103.8	2097.2
7.5°	2062.2	2046.9	2048.0	2039.2	2038.1
10°	1956.0	1964.8	1947.3	1962.6	1955.0
12.5°	1865.2	1870.7	1840.0	1846.6	1837.8
15°	1757.9	1763.4	1719.6	1728.4	1709.8
17.5°	1640.8	1660.5	1624.4	1635.3	1615.6
20°	1553.2	1569.7	1570.7	1553.2	1490.8
22.5°	1484.3	1500.7	1513.8	1461.3	1454.7
25°	1420.8	1439.4	1449.2	1414.2	1418.6
27.5°	1357.3	1378.1	1378.1	1385.8	1375.9
30°	1311.3	1320.1	1305.9	1334.3	1325.6
32.5°	1256.6	1259.9	1247.8	1268.6	1238.0
35°	1204.1	1206.2	1204.1	1205.2	1204.1
37.5°	1153.7	1148.2	1158.1	1151.5	1172.3
40°	1097.9	1097.9	1102.3	1113.2	1129.6
42.5°	1046.4	1050.8	1045.3	1076.0	1082.6
45°	988.4	996.1	987.3	1027.8	1018.0
47.5°	935.9	939.2	937.0	964.3	966.5
50°	879.0	883.3	885.5	909.6	912.9
52.5°	831.9	830.8	823.1	858.2	863.6
55°	776.1	775.0	772.8	800.2	807.8
57.5°	719.2	720.2	725.7	741.0	759.7
60°	667.7	662.2	666.6	685.2	700.5
62.5°	615.2	605.3	595.5	626.1	640.3
65°	557.2	545.1	539.6	564.8	588.9
67.5°	503.5	483.8	480.5	498.0	526.5
70°	442.2	418.1	417.0	430.2	464.1
72.5°	374.4	353.6	348.1	365.6	396.2
75°	309.8	286.8	280.2	296.6	325.1
77.5°	239.7	221.1	216.7	225.5	248.5
80°	168.6	157.6	153.2	156.5	172.9
82.5°	106.2	98.5	96.3	95.2	104.0
85°	53.6	48.2	48.2	44.9	47.1
87.5°	16.4	15.3	14.2	10.9	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)