

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: P485082

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3STD-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: P485082
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-LD4-3STD-40-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

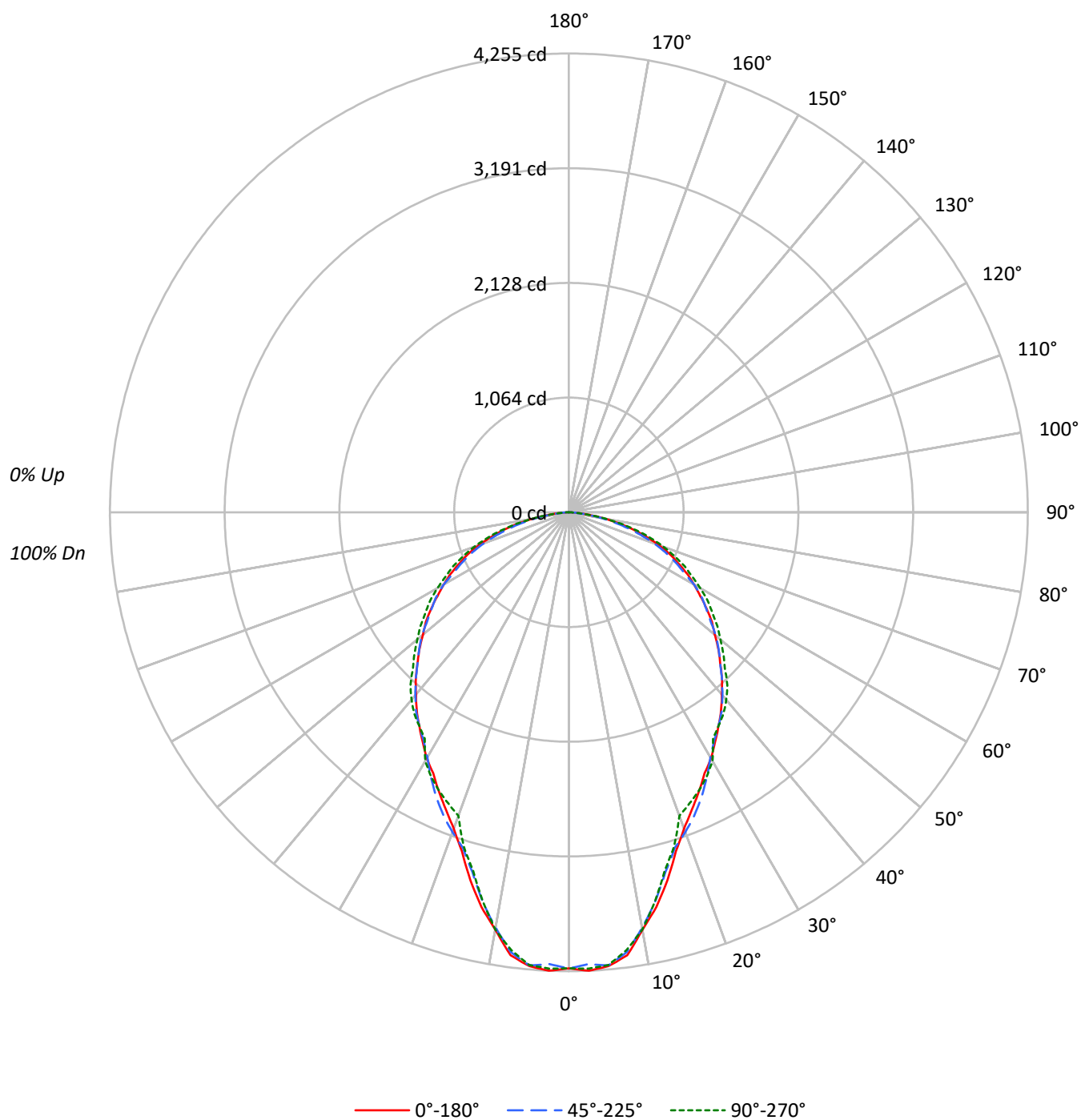
Lumens per Lamp: N/A
Luminaire Lumens: 9042.6 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11378	11378	11378
5°	11410	11392	11380
10°	10737	10688	10730
15°	9838	9623	9568
20°	8935	9035	8576
25°	8474	8644	8461
30°	8185	8151	8274
35°	7946	7946	7946
40°	7747	7778	7971
45°	7556	7548	7782
50°	7392	7447	7677
55°	7314	7283	7613
60°	7219	7207	7573
65°	7126	6902	7532
70°	6989	6591	7335
75°	6470	5853	6789
80°	5247	4770	5384
85°	3325	2986	2918



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.7	4.3
10°-20°	981.8	10.9
20°-30°	1325.9	14.7
30°-40°	1518.4	16.8
40°-50°	1555.3	17.2
50°-60°	1411.2	15.6
60°-70°	1101.4	12.2
70°-80°	624.7	6.9
80°-90°	131.1	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°	2700.4	29.9
0°-40°	4218.8	46.7
0°-60°	7185.3	79.5
0°-90°	9042.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9042.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4228	4228	4228	4228	4228	
5°	4224	4176	4217	4226	4213	395
15°	3531	3542	3454	3472	3434	987
25°	2854	2891	2911	2841	2850	1317
35°	2419	2423	2419	2421	2419	1515
45°	1986	2001	1983	2065	2045	1535
55°	1559	1557	1552	1607	1623	1393
65°	1119	1095	1084	1135	1183	1109
75°	622	576	563	596	653	651
85°	108	97	97	90	94	142
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4228.2	4228.2	4228.2	4228.2	4228.2
2.5°	4254.6	4221.6	4193.1	4239.2	4234.8
5°	4223.8	4175.5	4217.3	4226.0	4212.9
7.5°	4142.5	4111.7	4113.9	4096.3	4094.1
10°	3929.2	3946.8	3911.6	3942.4	3927.0
12.5°	3746.7	3757.7	3696.1	3709.3	3691.7
15°	3531.2	3542.2	3454.3	3471.9	3434.5
17.5°	3296.0	3335.5	3263.0	3285.0	3245.4
20°	3120.1	3153.0	3155.2	3120.1	2994.7
22.5°	2981.5	3014.5	3040.9	2935.4	2922.2
25°	2854.0	2891.4	2911.2	2840.8	2849.6
27.5°	2726.5	2768.3	2768.3	2783.6	2763.9
30°	2634.1	2651.7	2623.1	2680.3	2662.7
32.5°	2524.2	2530.8	2506.6	2548.4	2486.8
35°	2418.7	2423.1	2418.7	2420.9	2418.7
37.5°	2317.5	2306.5	2326.3	2313.1	2354.9
40°	2205.4	2205.4	2214.2	2236.2	2269.1
42.5°	2102.0	2110.8	2099.8	2161.4	2174.6
45°	1985.5	2000.9	1983.3	2064.7	2044.9
47.5°	1880.0	1886.5	1882.2	1937.1	1941.5
50°	1765.6	1774.4	1778.8	1827.2	1833.8
52.5°	1671.1	1668.9	1653.5	1723.8	1734.8
55°	1558.9	1556.7	1552.3	1607.3	1622.7
57.5°	1444.6	1446.8	1457.8	1488.6	1526.0
60°	1341.3	1330.3	1339.1	1376.4	1407.2
62.5°	1235.7	1215.9	1196.1	1257.7	1286.3
65°	1119.2	1095.0	1084.0	1134.6	1182.9
67.5°	1011.4	971.9	965.3	1000.4	1057.6
70°	888.3	839.9	837.7	864.1	932.3
72.5°	752.0	710.2	699.2	734.4	796.0
75°	622.3	576.1	562.9	595.9	653.0
77.5°	481.5	444.2	435.4	452.9	499.1
80°	338.6	316.6	307.8	314.4	347.4
82.5°	213.3	197.9	193.5	191.3	208.9
85°	107.7	96.7	96.7	90.1	94.5
87.5°	33.0	30.8	28.6	22.0	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)