

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: P485042

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2STD-30-120-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: P485042
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-LD4-2STD-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

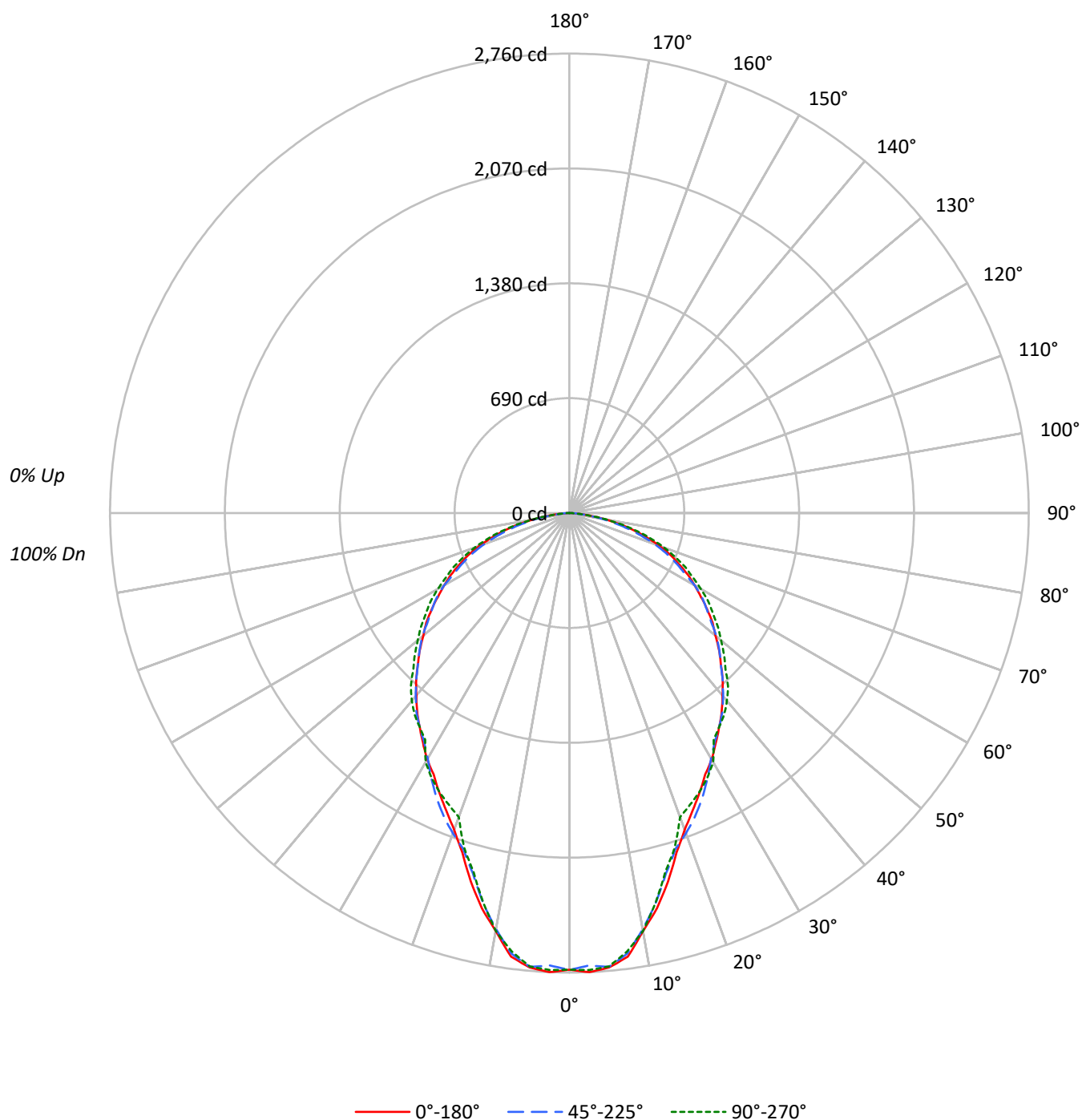
Lumens per Lamp: N/A
Luminaire Lumens: 5865.7 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7381	7381	7381
5°	7401	7390	7382
10°	6965	6933	6961
15°	6381	6242	6207
20°	5796	5861	5563
25°	5497	5607	5489
30°	5309	5287	5367
35°	5154	5154	5154
40°	5025	5045	5171
45°	4901	4896	5048
50°	4795	4831	4980
55°	4744	4724	4938
60°	4682	4675	4913
65°	4623	4478	4886
70°	4533	4275	4758
75°	4196	3796	4404
80°	3403	3095	3493
85°	2158	1939	1893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.7	4.3
10°-20°	636.9	10.9
20°-30°	860.1	14.7
30°-40°	984.9	16.8
40°-50°	1008.9	17.2
50°-60°	915.4	15.6
60°-70°	714.5	12.2
70°-80°	405.2	6.9
80°-90°	85.1	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°	1751.7	29.9
0°-40°	2736.6	46.7
0°-60°	4660.9	79.5
0°-90°	5865.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5865.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2743	2743	2743	2743	2743	
5°	2740	2708	2736	2741	2733	256
15°	2291	2298	2241	2252	2228	640
25°	1851	1876	1888	1843	1848	854
35°	1569	1572	1569	1570	1569	983
45°	1288	1298	1286	1339	1326	996
55°	1011	1010	1007	1043	1053	904
65°	726	710	703	736	767	719
75°	404	374	365	386	424	422
85°	70	63	63	58	61	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2742.8	2742.8	2742.8	2742.8	2742.8
2.5°	2759.9	2738.5	2719.9	2749.9	2747.0
5°	2739.9	2708.5	2735.6	2741.3	2732.8
7.5°	2687.1	2667.2	2668.6	2657.2	2655.7
10°	2548.8	2560.2	2537.4	2557.3	2547.4
12.5°	2430.4	2437.5	2397.6	2406.1	2394.7
15°	2290.6	2297.8	2240.7	2252.1	2227.9
17.5°	2138.0	2163.7	2116.6	2130.9	2105.2
20°	2023.9	2045.3	2046.7	2023.9	1942.6
22.5°	1934.0	1955.4	1972.6	1904.1	1895.5
25°	1851.3	1875.6	1888.4	1842.8	1848.5
27.5°	1768.6	1795.7	1795.7	1805.7	1792.8
30°	1708.7	1720.1	1701.6	1738.6	1727.2
32.5°	1637.4	1641.7	1626.0	1653.1	1613.1
35°	1568.9	1571.8	1568.9	1570.3	1568.9
37.5°	1503.3	1496.2	1509.0	1500.5	1527.6
40°	1430.6	1430.6	1436.3	1450.5	1471.9
42.5°	1363.5	1369.2	1362.1	1402.0	1410.6
45°	1287.9	1297.9	1286.5	1339.3	1326.4
47.5°	1219.5	1223.8	1220.9	1256.6	1259.4
50°	1145.3	1151.0	1153.9	1185.2	1189.5
52.5°	1084.0	1082.6	1072.6	1118.2	1125.3
55°	1011.2	1009.8	1007.0	1042.6	1052.6
57.5°	937.1	938.5	945.6	965.6	989.8
60°	870.0	862.9	868.6	892.9	912.8
62.5°	801.6	788.7	775.9	815.8	834.4
65°	726.0	710.3	703.2	736.0	767.3
67.5°	656.1	630.4	626.1	649.0	686.0
70°	576.2	544.8	543.4	560.5	604.7
72.5°	487.8	460.7	453.6	476.4	516.3
75°	403.6	373.7	365.1	386.5	423.6
77.5°	312.4	288.1	282.4	293.8	323.8
80°	219.6	205.4	199.7	204.0	225.4
82.5°	138.3	128.4	125.5	124.1	135.5
85°	69.9	62.8	62.8	58.5	61.3
87.5°	21.4	20.0	18.5	14.3	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)