

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: P485046

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2STD-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: P485046
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-40-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

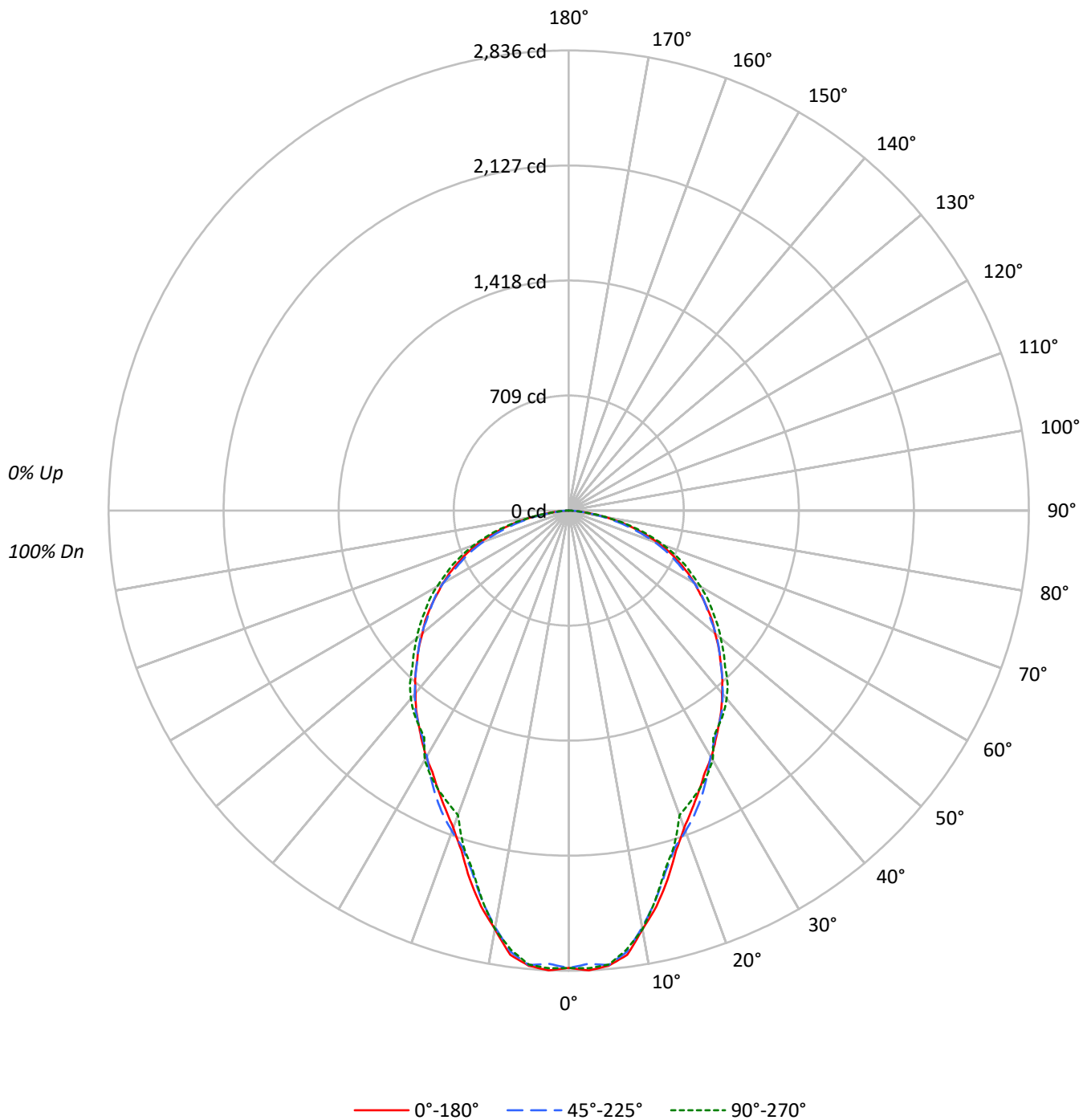
Lumens per Lamp: N/A
Luminaire Lumens: 6028.4 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7585	7585	7585
5°	7606	7595	7587
10°	7158	7126	7154
15°	6559	6416	6379
20°	5956	6024	5717
25°	5649	5763	5641
30°	5457	5434	5516
35°	5297	5297	5297
40°	5165	5185	5314
45°	5037	5032	5188
50°	4928	4965	5118
55°	4876	4855	5075
60°	4813	4804	5049
65°	4751	4602	5021
70°	4659	4394	4890
75°	4313	3902	4527
80°	3498	3180	3589
85°	2217	1991	1945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.8	4.3
10°-20°	654.5	10.9
20°-30°	883.9	14.7
30°-40°	1012.3	16.8
40°-50°	1036.9	17.2
50°-60°	940.8	15.6
60°-70°	734.3	12.2
70°-80°	416.5	6.9
80°-90°	87.4	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°	1800.3	29.9
0°-40°	2812.5	46.7
0°-60°	4790.2	79.5
0°-90°	6028.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6028.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2819	2819	2819	2819	2819	
5°	2816	2784	2812	2817	2809	263
15°	2354	2362	2303	2315	2290	658
25°	1903	1928	1941	1894	1900	878
35°	1612	1615	1612	1614	1612	1010
45°	1324	1334	1322	1376	1363	1023
55°	1039	1038	1035	1072	1082	929
65°	746	730	723	756	789	739
75°	415	384	375	397	435	434
85°	72	64	64	60	63	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2818.8	2818.8	2818.8	2818.8	2818.8
2.5°	2836.4	2814.4	2795.4	2826.2	2823.2
5°	2815.9	2783.6	2811.5	2817.4	2808.6
7.5°	2761.7	2741.1	2742.6	2730.9	2729.4
10°	2619.5	2631.2	2607.7	2628.3	2618.0
12.5°	2497.8	2505.1	2464.1	2472.9	2461.2
15°	2354.2	2361.5	2302.9	2314.6	2289.7
17.5°	2197.3	2223.7	2175.3	2190.0	2163.6
20°	2080.0	2102.0	2103.5	2080.0	1996.5
22.5°	1987.7	2009.7	2027.3	1956.9	1948.1
25°	1902.7	1927.6	1940.8	1893.9	1899.7
27.5°	1817.7	1845.5	1845.5	1855.8	1842.6
30°	1756.1	1767.8	1748.8	1786.9	1775.1
32.5°	1682.8	1687.2	1671.1	1698.9	1657.9
35°	1612.4	1615.4	1612.4	1613.9	1612.4
37.5°	1545.0	1537.7	1550.9	1542.1	1569.9
40°	1470.2	1470.2	1476.1	1490.8	1512.8
42.5°	1401.4	1407.2	1399.9	1440.9	1449.7
45°	1323.7	1333.9	1322.2	1376.4	1363.2
47.5°	1253.3	1257.7	1254.8	1291.4	1294.3
50°	1177.1	1182.9	1185.9	1218.1	1222.5
52.5°	1114.0	1112.6	1102.3	1149.2	1156.6
55°	1039.3	1037.8	1034.9	1071.5	1081.8
57.5°	963.1	964.5	971.9	992.4	1017.3
60°	894.2	886.8	892.7	917.6	938.1
62.5°	823.8	810.6	797.4	838.5	857.5
65°	746.1	730.0	722.7	756.4	788.6
67.5°	674.3	647.9	643.5	667.0	705.1
70°	592.2	560.0	558.5	576.1	621.5
72.5°	501.3	473.5	466.1	489.6	530.6
75°	414.8	384.1	375.3	397.2	435.4
77.5°	321.0	296.1	290.2	302.0	332.7
80°	225.7	211.1	205.2	209.6	231.6
82.5°	142.2	131.9	129.0	127.5	139.3
85°	71.8	64.5	64.5	60.1	63.0
87.5°	22.0	20.5	19.1	14.7	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)