

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: P485022

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-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: P485022
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-LD4-2HI-40-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

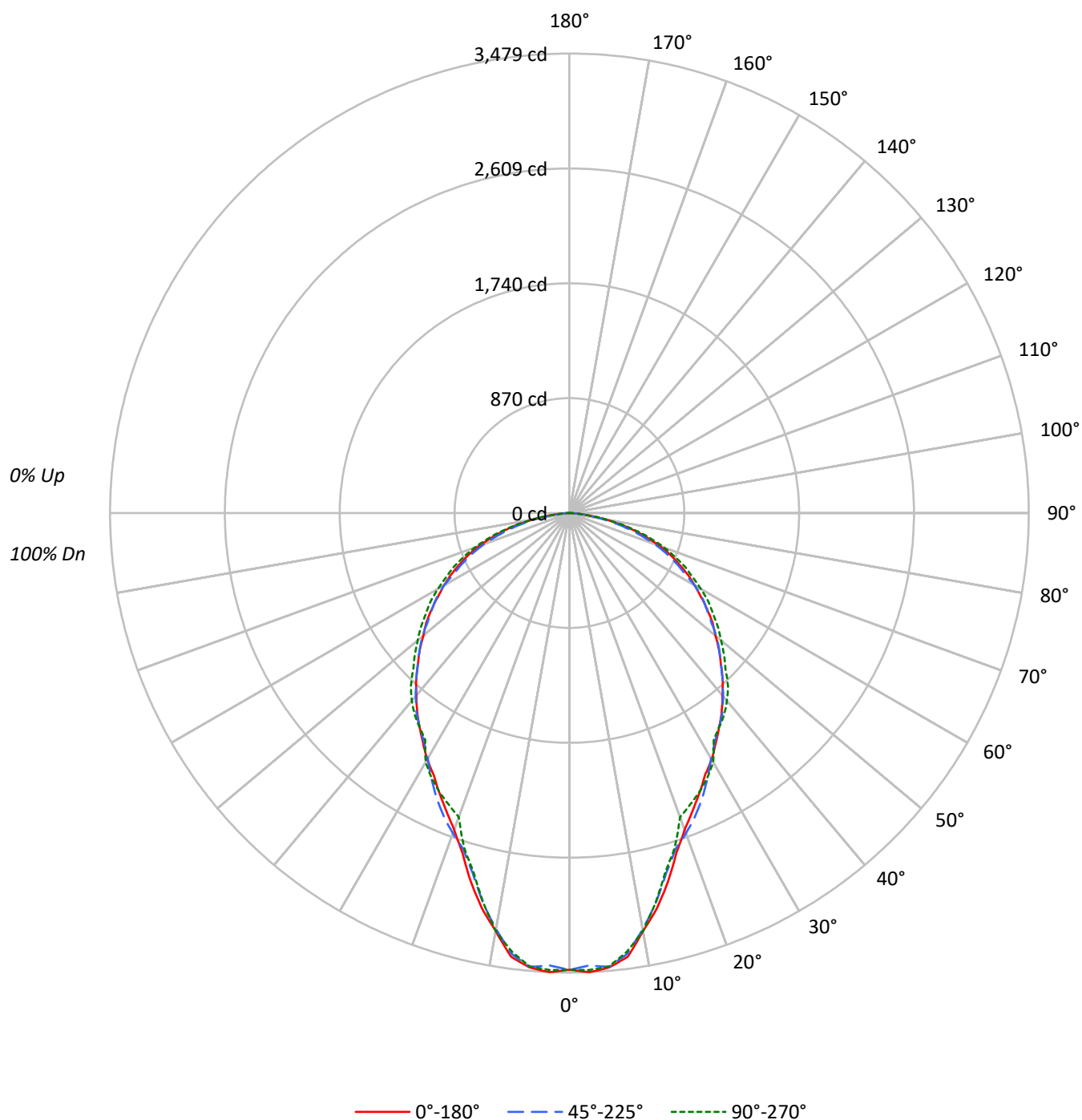
Lumens per Lamp: N/A
Luminaire Lumens: 7394.3 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	9304	9304	9304
5°	9330	9315	9306
10°	8779	8740	8775
15°	8045	7869	7824
20°	7306	7389	7013
25°	6929	7068	6919
30°	6693	6665	6766
35°	6497	6497	6497
40°	6335	6360	6518
45°	6179	6172	6363
50°	6044	6090	6278
55°	5981	5955	6225
60°	5903	5893	6193
65°	5827	5644	6159
70°	5715	5390	5998
75°	5290	4786	5552
80°	4291	3901	4403
85°	2720	2442	2387



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.1	4.3
10°-20°	802.8	10.9
20°-30°	1084.2	14.7
30°-40°	1241.6	16.8
40°-50°	1271.8	17.2
50°-60°	1154.0	15.6
60°-70°	900.7	12.2
70°-80°	510.8	6.9
80°-90°	107.2	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°	2208.2	29.9
0°-40°	3449.8	46.7
0°-60°	5875.6	79.5
0°-90°	7394.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7394.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3458	3458	3458	3458	3458	
5°	3454	3414	3448	3456	3445	323
15°	2888	2896	2825	2839	2808	807
25°	2334	2364	2380	2323	2330	1077
35°	1978	1981	1978	1980	1978	1239
45°	1624	1636	1622	1688	1672	1255
55°	1275	1273	1269	1314	1327	1139
65°	915	895	886	928	967	907
75°	509	471	460	487	534	532
85°	88	79	79	74	77	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3457.5	3457.5	3457.5	3457.5	3457.5
2.5°	3479.1	3452.1	3428.7	3466.5	3462.9
5°	3453.9	3414.4	3448.5	3455.7	3444.9
7.5°	3387.4	3362.2	3364.0	3349.6	3347.8
10°	3213.0	3227.4	3198.6	3223.8	3211.2
12.5°	3063.8	3072.7	3022.4	3033.2	3018.8
15°	2887.6	2896.5	2824.6	2839.0	2808.4
17.5°	2695.2	2727.5	2668.2	2686.2	2653.8
20°	2551.3	2578.3	2580.1	2551.3	2448.8
22.5°	2438.1	2465.0	2486.6	2400.3	2389.5
25°	2333.8	2364.3	2380.5	2323.0	2330.2
27.5°	2229.5	2263.7	2263.7	2276.2	2260.1
30°	2154.0	2168.4	2145.0	2191.7	2177.4
32.5°	2064.1	2069.5	2049.7	2083.9	2033.5
35°	1977.8	1981.4	1977.8	1979.6	1977.8
37.5°	1895.1	1886.1	1902.3	1891.5	1925.6
40°	1803.4	1803.4	1810.6	1828.5	1855.5
42.5°	1718.9	1726.1	1717.1	1767.4	1778.2
45°	1623.6	1636.2	1621.8	1688.3	1672.1
47.5°	1537.3	1542.7	1539.1	1584.0	1587.6
50°	1443.8	1451.0	1454.6	1494.1	1499.5
52.5°	1366.5	1364.7	1352.1	1409.6	1418.6
55°	1274.8	1273.0	1269.4	1314.3	1326.9
57.5°	1181.3	1183.1	1192.1	1217.2	1247.8
60°	1096.8	1087.8	1095.0	1125.5	1150.7
62.5°	1010.5	994.3	978.1	1028.4	1051.8
65°	915.2	895.4	886.4	927.8	967.3
67.5°	827.1	794.7	789.3	818.1	864.8
70°	726.4	686.8	685.0	706.6	762.3
72.5°	614.9	580.7	571.8	600.5	650.9
75°	508.8	471.1	460.3	487.3	534.0
77.5°	393.8	363.2	356.0	370.4	408.1
80°	276.9	258.9	251.7	257.1	284.1
82.5°	174.4	161.8	158.2	156.4	170.8
85°	88.1	79.1	79.1	73.7	77.3
87.5°	27.0	25.2	23.4	18.0	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)