

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: P485024

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-50-120-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: P485024
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-50-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

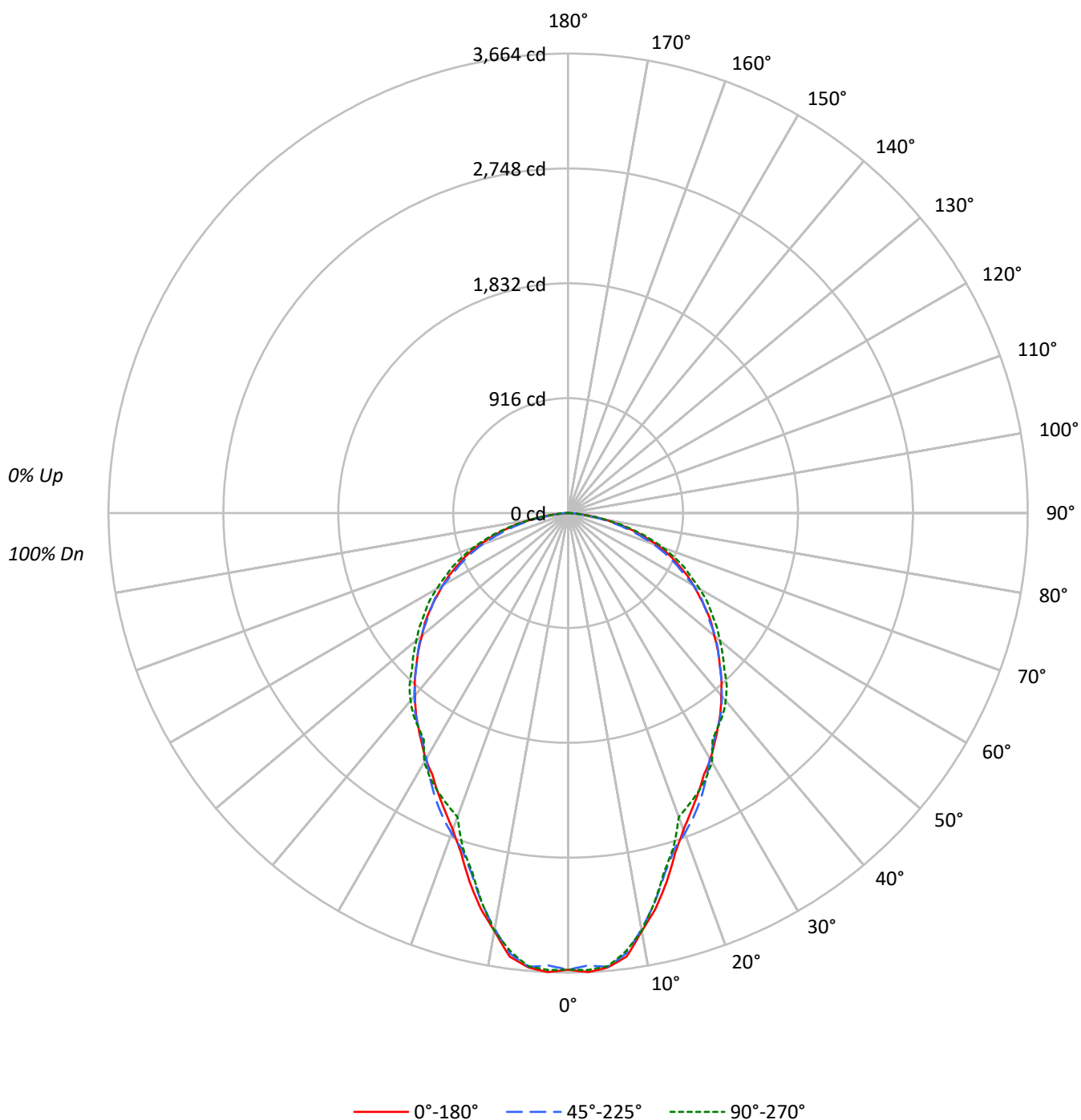
Lumens per Lamp: N/A
Luminaire Lumens: 7786.2 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9797	9797	9797
5°	9824	9809	9799
10°	9245	9203	9240
15°	8471	8286	8239
20°	7694	7780	7384
25°	7297	7443	7285
30°	7048	7018	7124
35°	6842	6842	6842
40°	6671	6697	6864
45°	6506	6499	6701
50°	6365	6412	6610
55°	6298	6271	6555
60°	6216	6205	6521
65°	6136	5943	6486
70°	6018	5675	6316
75°	5571	5039	5846
80°	4519	4108	4635
85°	2865	2572	2513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.1	4.3
10°-20°	845.4	10.9
20°-30°	1141.7	14.7
30°-40°	1307.4	16.8
40°-50°	1339.2	17.2
50°-60°	1215.1	15.6
60°-70°	948.4	12.2
70°-80°	537.9	6.9
80°-90°	112.9	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°	2325.2	29.9
0°-40°	3632.6	46.7
0°-60°	6187.0	79.5
0°-90°	7786.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7786.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3641	3641	3641	3641	3641	
5°	3637	3595	3631	3639	3628	340
15°	3041	3050	2974	2990	2957	850
25°	2458	2490	2507	2446	2454	1134
35°	2083	2086	2083	2084	2083	1305
45°	1710	1723	1708	1778	1761	1322
55°	1342	1340	1337	1384	1397	1200
65°	964	943	933	977	1019	955
75°	536	496	485	513	562	561
85°	93	83	83	78	81	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3640.8	3640.8	3640.8	3640.8	3640.8
2.5°	3663.5	3635.1	3610.5	3650.2	3646.4
5°	3637.0	3595.3	3631.3	3638.9	3627.5
7.5°	3566.9	3540.4	3542.3	3527.2	3525.3
10°	3383.3	3398.4	3368.1	3394.6	3381.4
12.5°	3226.1	3235.6	3182.6	3194.0	3178.8
15°	3040.6	3050.1	2974.3	2989.5	2957.3
17.5°	2838.0	2872.1	2809.6	2828.5	2794.5
20°	2686.6	2715.0	2716.8	2686.6	2578.6
22.5°	2567.3	2595.7	2618.4	2527.5	2516.2
25°	2457.5	2489.7	2506.7	2446.1	2453.7
27.5°	2347.7	2383.6	2383.6	2396.9	2379.8
30°	2268.1	2283.3	2258.7	2307.9	2292.8
32.5°	2173.5	2179.2	2158.3	2194.3	2141.3
35°	2082.6	2086.4	2082.6	2084.5	2082.6
37.5°	1995.5	1986.0	2003.1	1991.7	2027.7
40°	1899.0	1899.0	1906.5	1925.5	1953.9
42.5°	1810.0	1817.5	1808.1	1861.1	1872.4
45°	1709.6	1722.9	1707.7	1777.8	1760.7
47.5°	1618.7	1624.4	1620.6	1668.0	1671.8
50°	1520.3	1527.9	1531.7	1573.3	1579.0
52.5°	1438.9	1437.0	1423.7	1484.3	1493.8
55°	1342.3	1340.4	1336.7	1384.0	1397.2
57.5°	1243.9	1245.8	1255.2	1281.7	1313.9
60°	1154.9	1145.4	1153.0	1185.2	1211.7
62.5°	1064.0	1047.0	1029.9	1083.0	1107.6
65°	963.7	942.8	933.4	976.9	1018.6
67.5°	870.9	836.8	831.1	861.4	910.7
70°	764.9	723.2	721.3	744.1	802.7
72.5°	647.5	611.5	602.1	632.4	685.4
75°	535.8	496.0	484.7	513.1	562.3
77.5°	414.6	382.4	374.9	390.0	429.8
80°	291.6	272.6	265.1	270.7	299.1
82.5°	183.6	170.4	166.6	164.7	179.9
85°	92.8	83.3	83.3	77.6	81.4
87.5°	28.4	26.5	24.6	18.9	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)