

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: P485073

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-50-120-EDD**

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: P485073
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-LD4-3LO-50-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

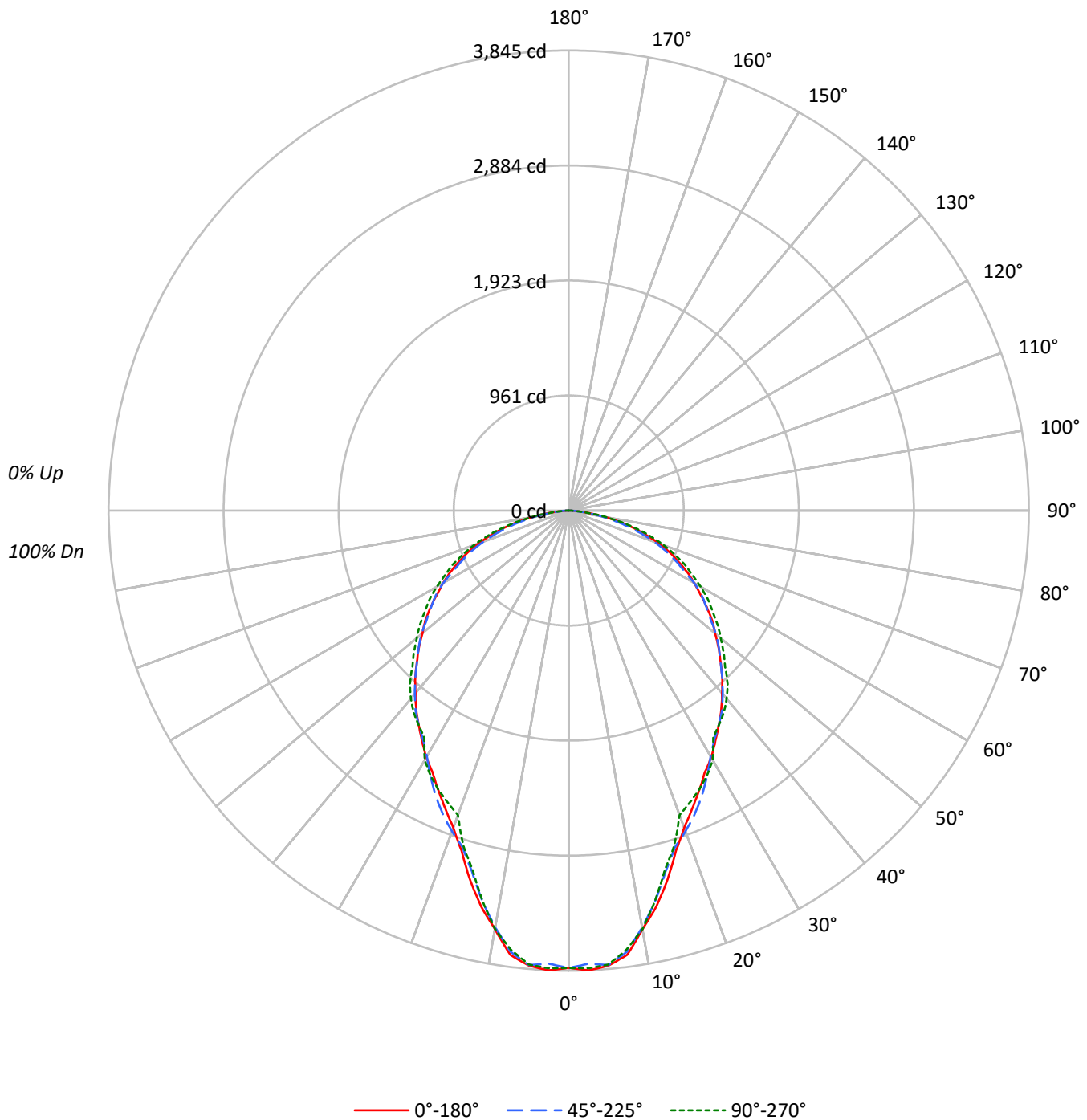
Lumens per Lamp: N/A
Luminaire Lumens: 8172.8 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	10284	10284	10284
5°	10312	10296	10285
10°	9704	9660	9698
15°	8891	8698	8648
20°	8075	8166	7751
25°	7659	7812	7647
30°	7398	7367	7478
35°	7181	7181	7181
40°	7002	7030	7204
45°	6829	6822	7034
50°	6681	6731	6939
55°	6610	6582	6881
60°	6524	6514	6845
65°	6441	6238	6808
70°	6317	5958	6629
75°	5847	5289	6136
80°	4742	4311	4866
85°	3007	2699	2640



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.9	4.3
10°-20°	887.4	10.9
20°-30°	1198.4	14.7
30°-40°	1372.3	16.8
40°-50°	1405.7	17.2
50°-60°	1275.5	15.6
60°-70°	995.5	12.2
70°-80°	564.6	6.9
80°-90°	118.5	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°	2440.7	29.9
0°-40°	3813.0	46.7
0°-60°	6494.2	79.5
0°-90°	8172.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8172.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3822	3822	3822	3822	3822	
5°	3818	3774	3812	3820	3808	357
15°	3192	3202	3122	3138	3104	892
25°	2580	2613	2631	2568	2576	1190
35°	2186	2190	2186	2188	2186	1369
45°	1794	1808	1792	1866	1848	1387
55°	1409	1407	1403	1453	1467	1259
65°	1012	990	980	1025	1069	1002
75°	562	521	509	539	590	588
85°	97	87	87	82	86	129
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3821.5	3821.5	3821.5	3821.5	3821.5
2.5°	3845.4	3815.6	3789.7	3831.5	3827.5
5°	3817.6	3773.8	3811.6	3819.5	3807.6
7.5°	3744.0	3716.2	3718.2	3702.3	3700.3
10°	3551.3	3567.2	3535.4	3563.2	3549.3
12.5°	3386.3	3396.3	3340.6	3352.5	3336.6
15°	3191.6	3201.5	3122.0	3137.9	3104.1
17.5°	2978.9	3014.7	2949.1	2969.0	2933.2
20°	2819.9	2849.8	2851.7	2819.9	2706.7
22.5°	2694.7	2724.6	2748.4	2653.0	2641.1
25°	2579.5	2613.3	2631.2	2567.6	2575.5
27.5°	2464.2	2502.0	2502.0	2515.9	2498.0
30°	2380.8	2396.7	2370.8	2422.5	2406.6
32.5°	2281.4	2287.4	2265.5	2303.3	2247.6
35°	2186.0	2190.0	2186.0	2188.0	2186.0
37.5°	2094.6	2084.7	2102.5	2090.6	2128.4
40°	1993.2	1993.2	2001.2	2021.1	2050.9
42.5°	1899.8	1907.8	1897.8	1953.5	1965.4
45°	1794.5	1808.4	1792.5	1866.1	1848.2
47.5°	1699.1	1705.1	1701.1	1750.8	1754.8
50°	1595.8	1603.7	1607.7	1651.4	1657.4
52.5°	1510.3	1508.3	1494.4	1558.0	1568.0
55°	1409.0	1407.0	1403.0	1452.7	1466.6
57.5°	1305.6	1307.6	1317.6	1345.4	1379.2
60°	1212.2	1202.3	1210.3	1244.0	1271.9
62.5°	1116.8	1099.0	1081.1	1136.7	1162.6
65°	1011.5	989.7	979.7	1025.4	1069.2
67.5°	914.1	878.4	872.4	904.2	955.9
70°	802.9	759.1	757.2	781.0	842.6
72.5°	679.6	641.9	632.0	663.8	719.4
75°	562.4	520.7	508.7	538.6	590.2
77.5°	435.2	401.4	393.5	409.4	451.1
80°	306.0	286.2	278.2	284.2	314.0
82.5°	192.8	178.9	174.9	172.9	188.8
85°	97.4	87.4	87.4	81.5	85.5
87.5°	29.8	27.8	25.8	19.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)