

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: P486969

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-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: P486969
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-24-4-INS-89BC-LD4-2HI-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

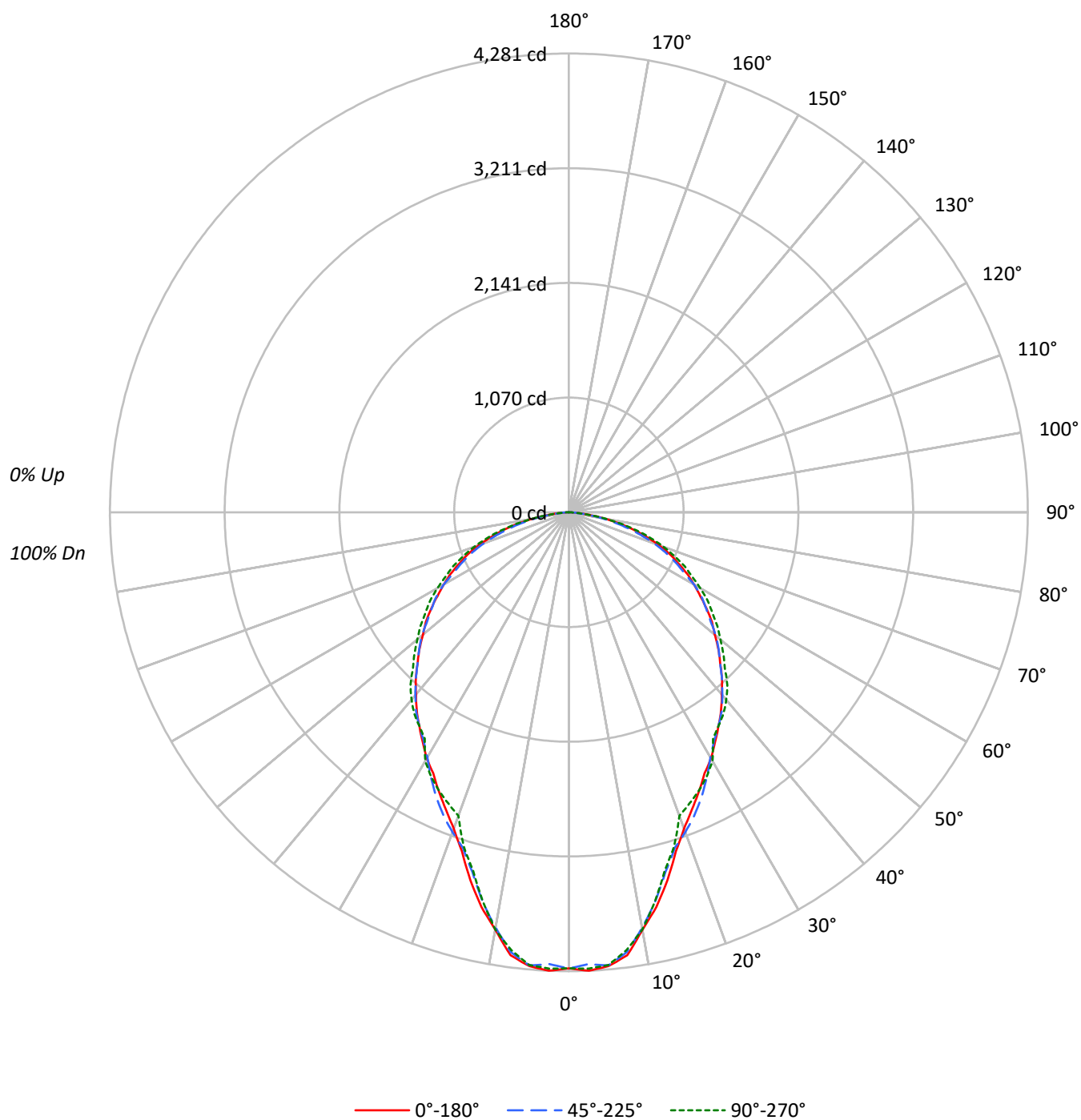
Lumens per Lamp: N/A
Luminaire Lumens: 9097.8 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	5724	5724	5724
5°	5740	5731	5725
10°	5401	5377	5398
15°	4949	4841	4813
20°	4495	4545	4314
25°	4263	4348	4256
30°	4117	4100	4162
35°	3997	3997	3997
40°	3897	3913	4010
45°	3801	3797	3915
50°	3718	3746	3862
55°	3679	3664	3830
60°	3631	3625	3810
65°	3585	3472	3789
70°	3516	3316	3690
75°	3255	2944	3415
80°	2640	2400	2708
85°	1673	1502	1468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.1	4.3
10°-20°	987.8	10.9
20°-30°	1334.0	14.7
30°-40°	1527.6	16.8
40°-50°	1564.8	17.2
50°-60°	1419.8	15.6
60°-70°	1108.2	12.2
70°-80°	628.5	6.9
80°-90°	131.9	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°	2716.9	29.9
0°-40°	4244.6	46.7
0°-60°	7229.2	79.5
0°-90°	9097.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9097.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4254	4254	4254	4254	4254	
5°	4250	4201	4243	4252	4239	397
15°	3553	3564	3475	3493	3456	993
25°	2871	2909	2929	2858	2867	1325
35°	2433	2438	2433	2436	2433	1524
45°	1998	2013	1995	2077	2057	1544
55°	1568	1566	1562	1617	1633	1402
65°	1126	1102	1091	1142	1190	1116
75°	626	580	566	600	657	655
85°	108	97	97	91	95	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4254.1	4254.1	4254.1	4254.1	4254.1
2.5°	4280.6	4247.4	4218.7	4265.1	4260.7
5°	4249.6	4201.0	4243.0	4251.8	4238.6
7.5°	4167.8	4136.8	4139.0	4121.3	4119.1
10°	3953.2	3970.9	3935.5	3966.5	3951.0
12.5°	3769.6	3780.6	3718.7	3732.0	3714.3
15°	3552.8	3563.9	3475.4	3493.1	3455.5
17.5°	3316.1	3355.9	3282.9	3305.0	3265.2
20°	3139.1	3172.3	3174.5	3139.1	3013.0
22.5°	2999.7	3032.9	3059.5	2953.3	2940.0
25°	2871.4	2909.0	2928.9	2858.2	2867.0
27.5°	2743.1	2785.2	2785.2	2800.6	2780.7
30°	2650.2	2667.9	2639.2	2696.7	2679.0
32.5°	2539.6	2546.2	2521.9	2563.9	2502.0
35°	2433.4	2437.8	2433.4	2435.6	2433.4
37.5°	2331.7	2320.6	2340.5	2327.2	2369.3
40°	2218.8	2218.8	2227.7	2249.8	2283.0
42.5°	2114.9	2123.7	2112.6	2174.6	2187.9
45°	1997.6	2013.1	1995.4	2077.3	2057.3
47.5°	1891.4	1898.1	1893.6	1948.9	1953.4
50°	1776.4	1785.2	1789.7	1838.3	1845.0
52.5°	1681.3	1679.1	1663.6	1734.4	1745.4
55°	1568.4	1566.2	1561.8	1617.1	1632.6
57.5°	1453.4	1455.6	1466.7	1497.7	1535.3
60°	1349.4	1338.4	1347.2	1384.8	1415.8
62.5°	1243.3	1223.3	1203.4	1265.4	1294.1
65°	1126.0	1101.7	1090.6	1141.5	1190.2
67.5°	1017.6	977.8	971.2	1006.6	1064.1
70°	893.7	845.1	842.8	869.4	938.0
72.5°	756.6	714.5	703.5	738.9	800.8
75°	626.1	579.6	566.3	599.5	657.0
77.5°	484.5	446.9	438.0	455.7	502.2
80°	340.7	318.6	309.7	316.3	349.5
82.5°	214.6	199.1	194.7	192.5	210.2
85°	108.4	97.3	97.3	90.7	95.1
87.5°	33.2	31.0	28.8	22.1	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)