

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: P485771

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-20-120-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: P485771
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-24-2-INS-89BC-LD4-5HI-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

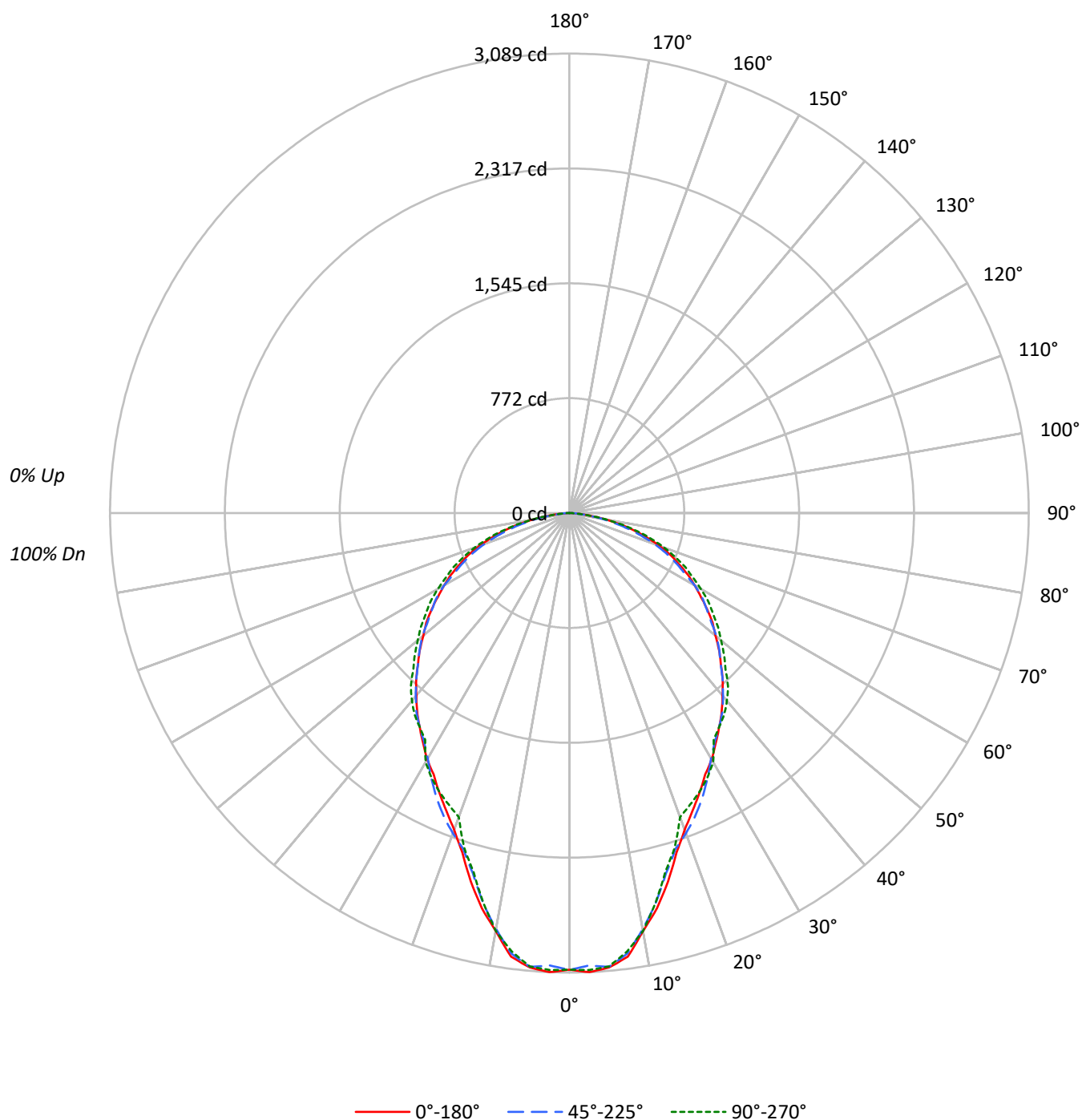
Lumens per Lamp: N/A
Luminaire Lumens: 6564.7 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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°	8260	8260	8260
5°	8283	8270	8262
10°	7794	7759	7790
15°	7142	6986	6946
20°	6487	6560	6226
25°	6152	6275	6142
30°	5942	5917	6007
35°	5768	5768	5768
40°	5624	5647	5787
45°	5485	5479	5649
50°	5366	5406	5573
55°	5309	5287	5527
60°	5240	5232	5498
65°	5174	5011	5468
70°	5074	4785	5325
75°	4696	4248	4929
80°	3809	3464	3908
85°	2414	2167	2118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.1	4.3
10°-20°	712.8	10.9
20°-30°	962.6	14.7
30°-40°	1102.3	16.8
40°-50°	1129.1	17.2
50°-60°	1024.5	15.6
60°-70°	799.6	12.2
70°-80°	453.5	6.9
80°-90°	95.2	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°	1960.5	29.9
0°-40°	3062.8	46.7
0°-60°	5216.4	79.5
0°-90°	6564.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6564.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3070	3070	3070	3070	3070	
5°	3066	3031	3062	3068	3058	286
15°	2564	2572	2508	2520	2493	716
25°	2072	2099	2113	2062	2069	956
35°	1756	1759	1756	1758	1756	1100
45°	1441	1453	1440	1499	1484	1114
55°	1132	1130	1127	1167	1178	1011
65°	812	795	787	824	859	805
75°	452	418	409	433	474	473
85°	78	70	70	65	69	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3069.6	3069.6	3069.6	3069.6	3069.6
2.5°	3088.8	3064.8	3044.1	3077.6	3074.4
5°	3066.4	3031.3	3061.6	3068.0	3058.4
7.5°	3007.3	2985.0	2986.6	2973.8	2972.2
10°	2852.5	2865.3	2839.7	2862.1	2850.9
12.5°	2720.0	2728.0	2683.3	2692.9	2680.1
15°	2563.6	2571.6	2507.7	2520.5	2493.4
17.5°	2392.8	2421.5	2368.8	2384.8	2356.1
20°	2265.1	2289.0	2290.6	2265.1	2174.1
22.5°	2164.5	2188.5	2207.6	2131.0	2121.4
25°	2071.9	2099.1	2113.4	2062.4	2068.7
27.5°	1979.4	2009.7	2009.7	2020.9	2006.5
30°	1912.3	1925.1	1904.3	1945.8	1933.1
32.5°	1832.5	1837.3	1819.7	1850.1	1805.4
35°	1755.9	1759.1	1755.9	1757.5	1755.9
37.5°	1682.5	1674.5	1688.8	1679.3	1709.6
40°	1601.0	1601.0	1607.4	1623.4	1647.3
42.5°	1526.0	1532.4	1524.4	1569.1	1578.7
45°	1441.4	1452.6	1439.8	1498.9	1484.5
47.5°	1364.8	1369.6	1366.4	1406.3	1409.5
50°	1281.8	1288.2	1291.4	1326.5	1331.3
52.5°	1213.2	1211.6	1200.4	1251.5	1259.4
55°	1131.7	1130.1	1127.0	1166.9	1178.0
57.5°	1048.7	1050.3	1058.3	1080.7	1107.8
60°	973.7	965.7	972.1	999.3	1021.6
62.5°	897.1	882.7	868.4	913.1	933.8
65°	812.5	794.9	787.0	823.7	858.8
67.5°	734.3	705.5	700.8	726.3	767.8
70°	644.9	609.8	608.2	627.3	676.8
72.5°	545.9	515.6	507.6	533.1	577.8
75°	451.7	418.2	408.6	432.6	474.1
77.5°	349.6	322.4	316.1	328.8	362.4
80°	245.8	229.9	223.5	228.3	252.2
82.5°	154.8	143.7	140.5	138.9	151.6
85°	78.2	70.2	70.2	65.4	68.6
87.5°	23.9	22.3	20.8	16.0	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)