

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: P485773

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-27-120-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: P485773
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-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

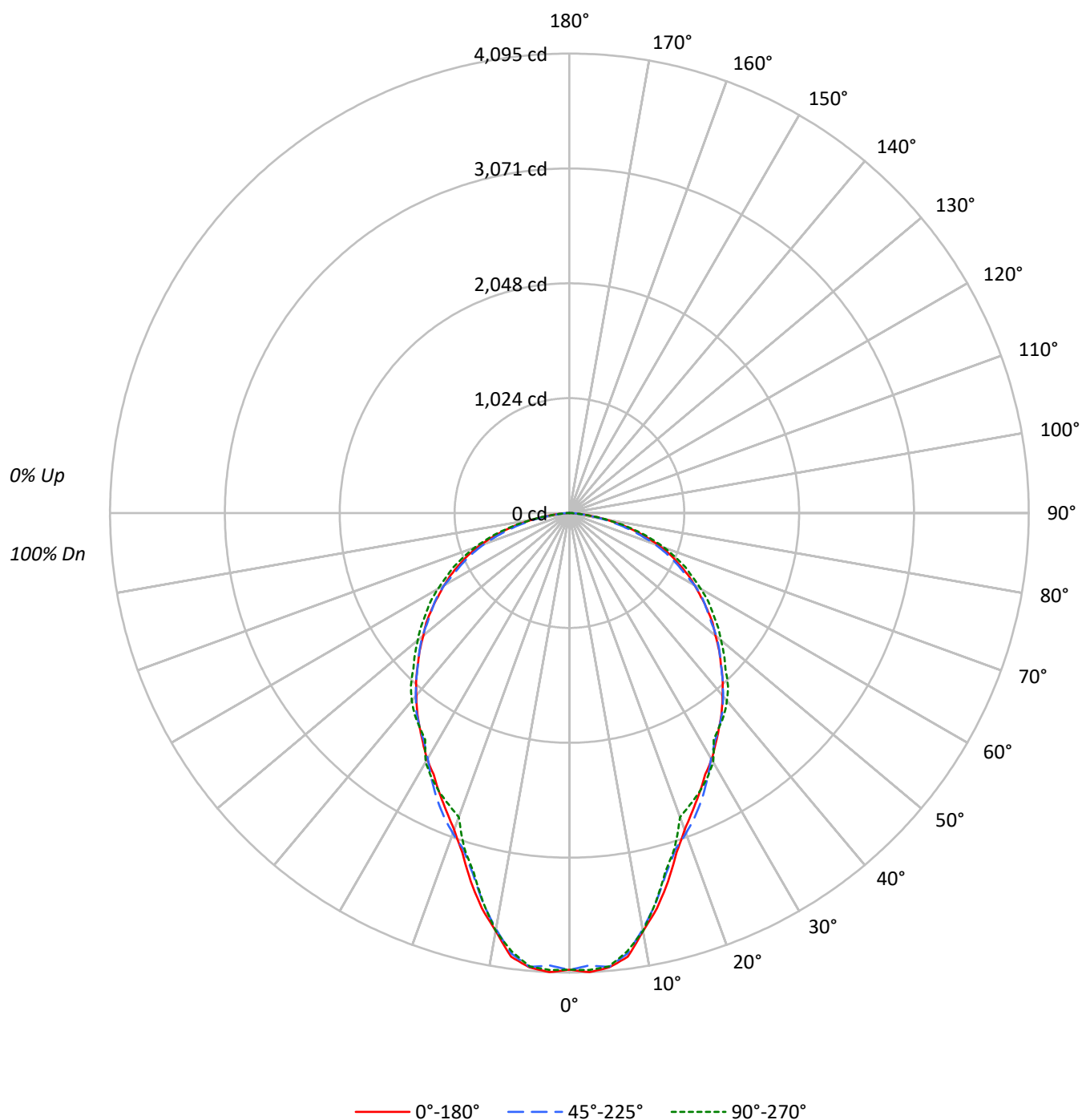
Lumens per Lamp: N/A
Luminaire Lumens: 8703.2 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	10951	10951	10951
5°	10981	10964	10953
10°	10333	10287	10328
15°	9468	9262	9209
20°	8600	8696	8254
25°	8156	8319	8144
30°	7878	7845	7963
35°	7647	7647	7647
40°	7456	7486	7672
45°	7273	7265	7490
50°	7114	7167	7389
55°	7039	7010	7327
60°	6948	6936	7289
65°	6859	6643	7249
70°	6727	6344	7060
75°	6227	5633	6535
80°	5050	4592	5182
85°	3202	2875	2810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	378.0	4.3
10°-20°	945.0	10.9
20°-30°	1276.2	14.7
30°-40°	1461.4	16.8
40°-50°	1496.9	17.2
50°-60°	1358.3	15.6
60°-70°	1060.1	12.2
70°-80°	601.3	6.9
80°-90°	126.2	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°	2599.1	29.9
0°-40°	4060.5	46.7
0°-60°	6915.7	79.5
0°-90°	8703.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8703.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4070	4070	4070	4070	4070	
5°	4065	4019	4059	4067	4055	380
15°	3399	3409	3325	3342	3306	950
25°	2747	2783	2802	2734	2743	1268
35°	2328	2332	2328	2330	2328	1458
45°	1911	1926	1909	1987	1968	1477
55°	1500	1498	1494	1547	1562	1341
65°	1077	1054	1043	1092	1138	1068
75°	599	554	542	574	628	627
85°	104	93	93	87	91	137
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4069.5	4069.5	4069.5	4069.5	4069.5
2.5°	4094.9	4063.2	4035.7	4080.1	4075.9
5°	4065.3	4018.8	4059.0	4067.4	4054.7
7.5°	3987.0	3957.4	3959.5	3942.6	3940.5
10°	3781.7	3798.7	3764.8	3794.4	3779.6
12.5°	3606.1	3616.7	3557.4	3570.1	3553.2
15°	3398.7	3409.3	3324.6	3341.6	3305.6
17.5°	3172.3	3210.3	3140.5	3161.7	3123.6
20°	3003.0	3034.7	3036.8	3003.0	2882.3
22.5°	2869.6	2901.4	2926.8	2825.2	2812.5
25°	2746.9	2782.9	2801.9	2734.2	2742.7
27.5°	2624.1	2664.4	2664.4	2679.2	2660.1
30°	2535.3	2552.2	2524.7	2579.7	2562.8
32.5°	2429.5	2435.8	2412.5	2452.7	2393.5
35°	2327.9	2332.1	2327.9	2330.0	2327.9
37.5°	2230.5	2219.9	2239.0	2226.3	2266.5
40°	2122.6	2122.6	2131.1	2152.2	2184.0
42.5°	2023.1	2031.6	2021.0	2080.3	2093.0
45°	1911.0	1925.8	1908.9	1987.2	1968.1
47.5°	1809.4	1815.7	1811.5	1864.4	1868.6
50°	1699.3	1707.8	1712.0	1758.6	1765.0
52.5°	1608.3	1606.2	1591.4	1659.1	1669.7
55°	1500.4	1498.3	1494.1	1547.0	1561.8
57.5°	1390.4	1392.5	1403.1	1432.7	1468.7
60°	1290.9	1280.3	1288.8	1324.8	1354.4
62.5°	1189.3	1170.3	1151.2	1210.5	1238.0
65°	1077.2	1053.9	1043.3	1092.0	1138.5
67.5°	973.5	935.4	929.0	962.9	1017.9
70°	855.0	808.4	806.3	831.7	897.3
72.5°	723.8	683.5	673.0	706.8	766.1
75°	598.9	554.5	541.8	573.5	628.5
77.5°	463.5	427.5	419.0	435.9	480.4
80°	325.9	304.7	296.3	302.6	334.4
82.5°	205.3	190.5	186.2	184.1	201.0
85°	103.7	93.1	93.1	86.8	91.0
87.5°	31.7	29.6	27.5	21.2	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)