

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: P487019

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3STD-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: P487019
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-LD4-3STD-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

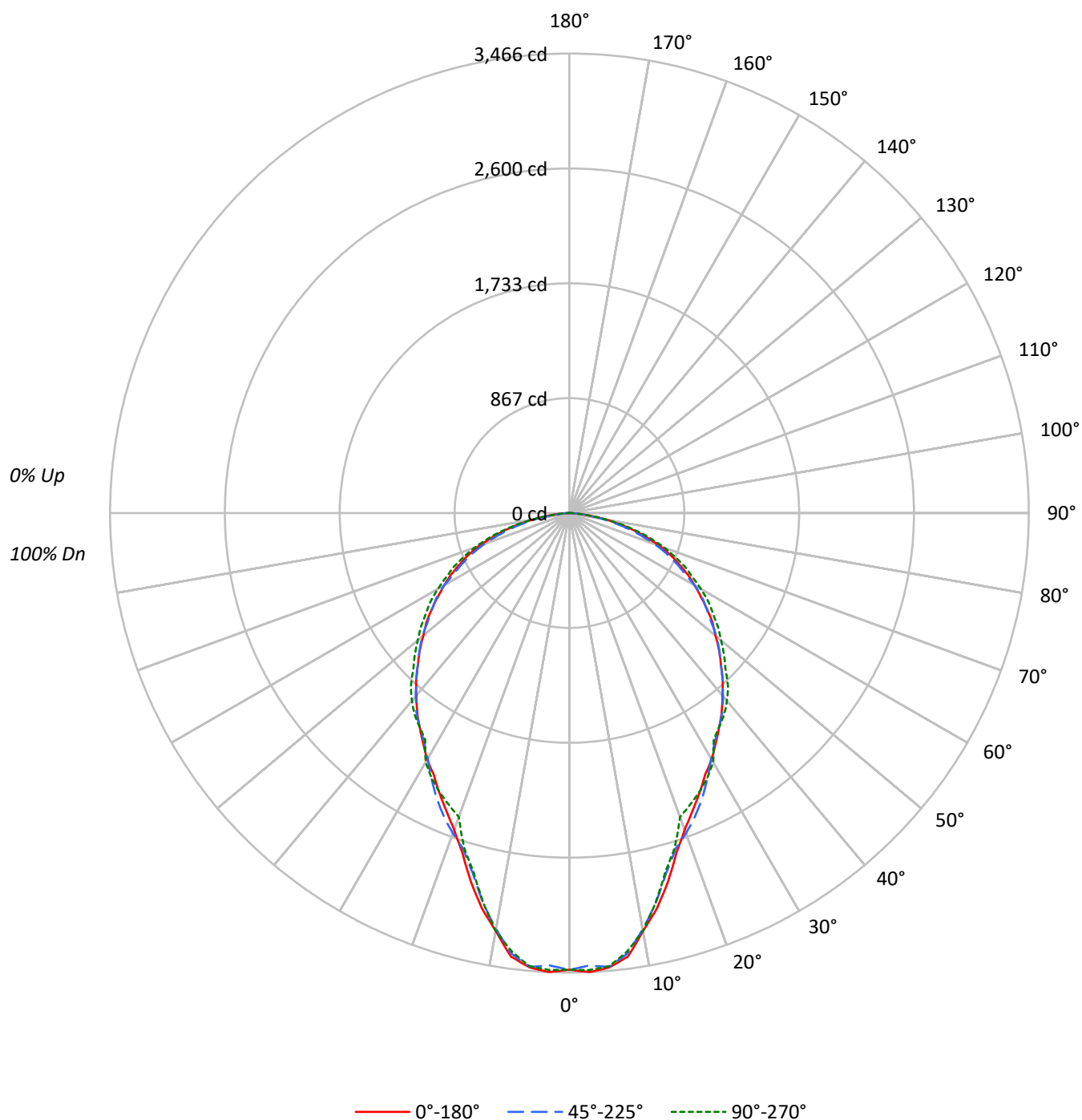
Lumens per Lamp: N/A
Luminaire Lumens: 7365.7 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	4634	4634	4634
5°	4647	4640	4635
10°	4373	4353	4370
15°	4007	3919	3897
20°	3639	3680	3493
25°	3451	3520	3446
30°	3333	3320	3370
35°	3236	3236	3236
40°	3155	3168	3246
45°	3077	3074	3170
50°	3010	3033	3127
55°	2979	2966	3101
60°	2940	2935	3085
65°	2902	2811	3068
70°	2847	2685	2987
75°	2635	2384	2765
80°	2137	1943	2193
85°	1355	1216	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.9	4.3
10°-20°	799.7	10.9
20°-30°	1080.0	14.7
30°-40°	1236.8	16.8
40°-50°	1266.9	17.2
50°-60°	1149.5	15.6
60°-70°	897.2	12.2
70°-80°	508.9	6.9
80°-90°	106.8	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°	2199.7	29.9
0°-40°	3436.5	46.7
0°-60°	5852.9	79.5
0°-90°	7365.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7365.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3444	3444	3444	3444	3444	
5°	3441	3401	3435	3442	3432	321
15°	2876	2885	2814	2828	2798	804
25°	2325	2355	2371	2314	2321	1073
35°	1970	1974	1970	1972	1970	1234
45°	1617	1630	1616	1682	1666	1250
55°	1270	1268	1264	1309	1322	1135
65°	912	892	883	924	964	903
75°	507	469	458	485	532	530
85°	88	79	79	73	77	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3444.1	3444.1	3444.1	3444.1	3444.1
2.5°	3465.6	3438.8	3415.5	3453.1	3449.5
5°	3440.6	3401.2	3435.2	3442.3	3431.6
7.5°	3374.3	3349.2	3351.0	3336.7	3334.9
10°	3200.6	3214.9	3186.2	3211.3	3198.8
12.5°	3051.9	3060.9	3010.7	3021.5	3007.1
15°	2876.4	2885.3	2813.7	2828.0	2797.6
17.5°	2684.7	2717.0	2657.9	2675.8	2643.6
20°	2541.5	2568.3	2570.1	2541.5	2439.4
22.5°	2428.6	2455.5	2477.0	2391.0	2380.3
25°	2324.8	2355.2	2371.3	2314.0	2321.2
27.5°	2220.9	2254.9	2254.9	2267.4	2251.3
30°	2145.6	2160.0	2136.7	2183.3	2168.9
32.5°	2056.1	2061.5	2041.8	2075.8	2025.6
35°	1970.1	1973.7	1970.1	1971.9	1970.1
37.5°	1887.7	1878.8	1894.9	1884.2	1918.2
40°	1796.4	1796.4	1803.6	1821.5	1848.3
42.5°	1712.2	1719.4	1710.4	1760.6	1771.3
45°	1617.3	1629.8	1615.5	1681.8	1665.7
47.5°	1531.3	1536.7	1533.1	1577.9	1581.5
50°	1438.2	1445.4	1448.9	1488.3	1493.7
52.5°	1361.2	1359.4	1346.9	1404.2	1413.1
55°	1269.8	1268.0	1264.5	1309.2	1321.8
57.5°	1176.7	1178.5	1187.4	1212.5	1243.0
60°	1092.5	1083.6	1090.7	1121.2	1146.3
62.5°	1006.6	990.4	974.3	1024.5	1047.7
65°	911.6	891.9	883.0	924.2	963.6
67.5°	823.9	791.6	786.3	814.9	861.5
70°	723.6	684.2	682.4	703.9	759.4
72.5°	612.5	578.5	569.5	598.2	648.4
75°	506.9	469.2	458.5	485.4	531.9
77.5°	392.2	361.8	354.6	369.0	406.6
80°	275.8	257.9	250.7	256.1	283.0
82.5°	173.7	161.2	157.6	155.8	170.1
85°	87.8	78.8	78.8	73.4	77.0
87.5°	26.9	25.1	23.3	17.9	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)