

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: P485814

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-40-120-EDD-90**

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: P485814
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-LD4-6HI-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

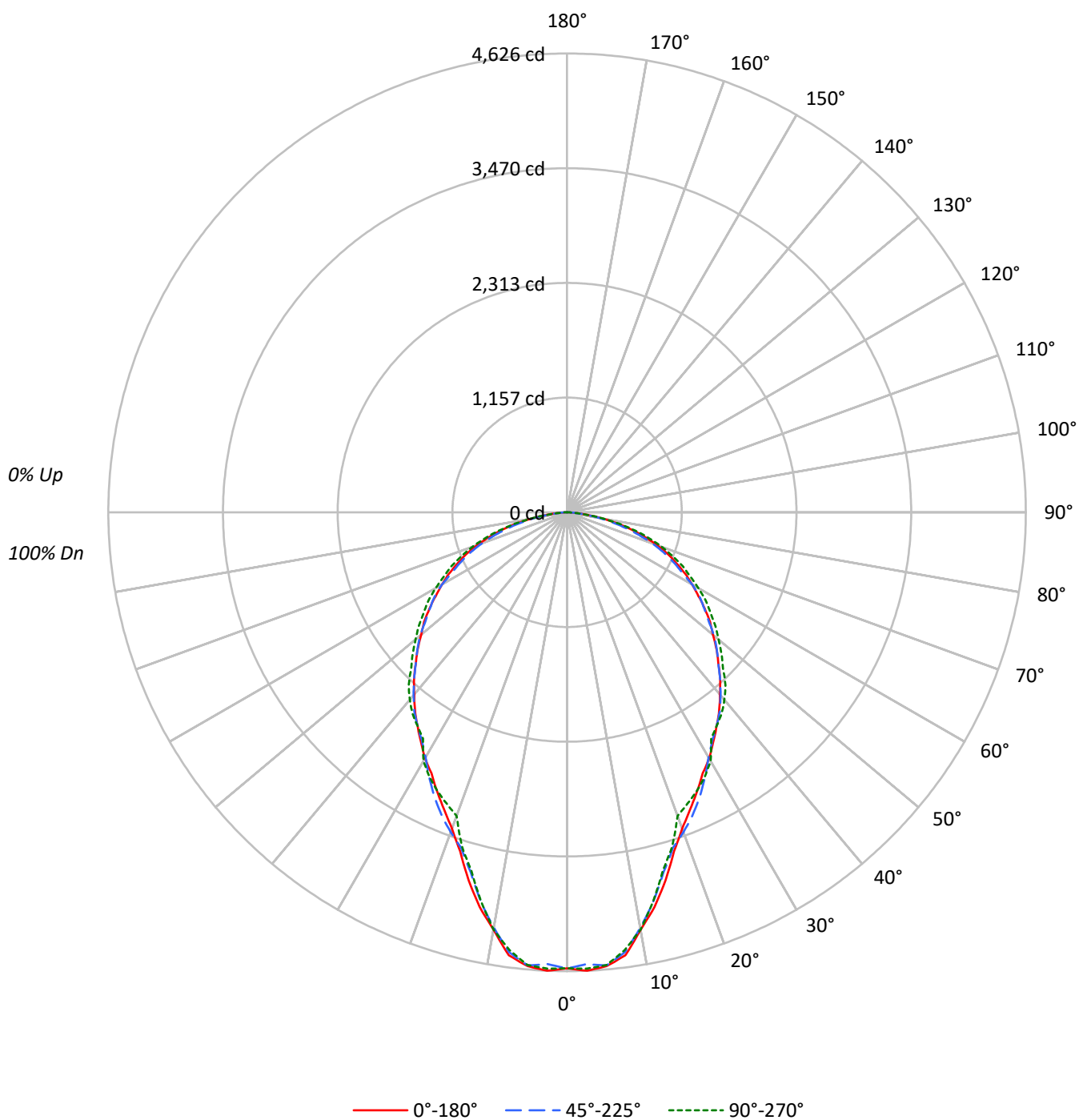
Lumens per Lamp: N/A
Luminaire Lumens: 9831.2 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12370	12370	12370
5°	12405	12385	12373
10°	11673	11621	11666
15°	10696	10462	10403
20°	9714	9824	9324
25°	9213	9398	9199
30°	8899	8862	8995
35°	8638	8638	8638
40°	8423	8456	8666
45°	8215	8206	8461
50°	8036	8096	8346
55°	7952	7918	8277
60°	7848	7835	8234
65°	7748	7504	8189
70°	7599	7166	7975
75°	7034	6363	7382
80°	5704	5187	5853
85°	3616	3248	3174



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.0	4.3
10°-20°	1067.4	10.9
20°-30°	1441.6	14.7
30°-40°	1650.8	16.8
40°-50°	1690.9	17.2
50°-60°	1534.3	15.6
60°-70°	1197.5	12.2
70°-80°	679.2	6.9
80°-90°	142.6	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°	2935.9	29.9
0°-40°	4586.7	46.7
0°-60°	7812.0	79.5
0°-90°	9831.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9831.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4597	4597	4597	4597	4597	
5°	4592	4540	4585	4595	4580	429
15°	3839	3851	3756	3775	3734	1073
25°	3103	3144	3165	3089	3098	1432
35°	2630	2634	2630	2632	2630	1647
45°	2159	2175	2156	2245	2223	1669
55°	1695	1692	1688	1748	1764	1515
65°	1217	1190	1178	1234	1286	1206
75°	676	626	612	648	710	708
85°	117	105	105	98	103	155
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4597.0	4597.0	4597.0	4597.0	4597.0
2.5°	4625.7	4589.8	4558.7	4608.9	4604.2
5°	4592.2	4539.6	4585.0	4594.6	4580.3
7.5°	4503.8	4470.3	4472.7	4453.6	4451.2
10°	4271.9	4291.0	4252.8	4286.2	4269.5
12.5°	4073.5	4085.4	4018.5	4032.8	4013.7
15°	3839.2	3851.1	3755.5	3774.6	3734.0
17.5°	3583.4	3626.4	3547.5	3571.5	3528.4
20°	3392.2	3428.0	3430.4	3392.2	3255.9
22.5°	3241.6	3277.4	3306.1	3191.4	3177.0
25°	3102.9	3143.5	3165.1	3088.6	3098.1
27.5°	2964.3	3009.7	3009.7	3026.4	3004.9
30°	2863.9	2883.0	2851.9	2914.1	2894.9
32.5°	2744.3	2751.5	2725.2	2770.6	2703.7
35°	2629.6	2634.4	2629.6	2632.0	2629.6
37.5°	2519.6	2507.7	2529.2	2514.8	2560.3
40°	2397.7	2397.7	2407.3	2431.2	2467.0
42.5°	2285.3	2294.9	2283.0	2349.9	2364.2
45°	2158.6	2175.4	2156.3	2244.7	2223.2
47.5°	2043.9	2051.1	2046.3	2106.1	2110.8
50°	1919.6	1929.2	1933.9	1986.5	1993.7
52.5°	1816.8	1814.4	1797.7	1874.2	1886.1
55°	1694.9	1692.5	1687.7	1747.5	1764.2
57.5°	1570.6	1573.0	1584.9	1618.4	1659.0
60°	1458.2	1446.3	1455.8	1496.5	1529.9
62.5°	1343.5	1322.0	1300.4	1367.4	1398.5
65°	1216.8	1190.5	1178.5	1233.5	1286.1
67.5°	1099.6	1056.6	1049.4	1087.7	1149.8
70°	965.8	913.2	910.8	939.5	1013.6
72.5°	817.6	772.1	760.2	798.4	865.4
75°	676.5	626.3	612.0	647.8	710.0
77.5°	523.5	482.9	473.3	492.4	542.7
80°	368.1	344.2	334.7	341.8	377.7
82.5°	231.9	215.1	210.4	208.0	227.1
85°	117.1	105.2	105.2	98.0	102.8
87.5°	35.9	33.5	31.1	23.9	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)