

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: P487082

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5LO-30-120-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: P487082
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-LD4-5LO-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

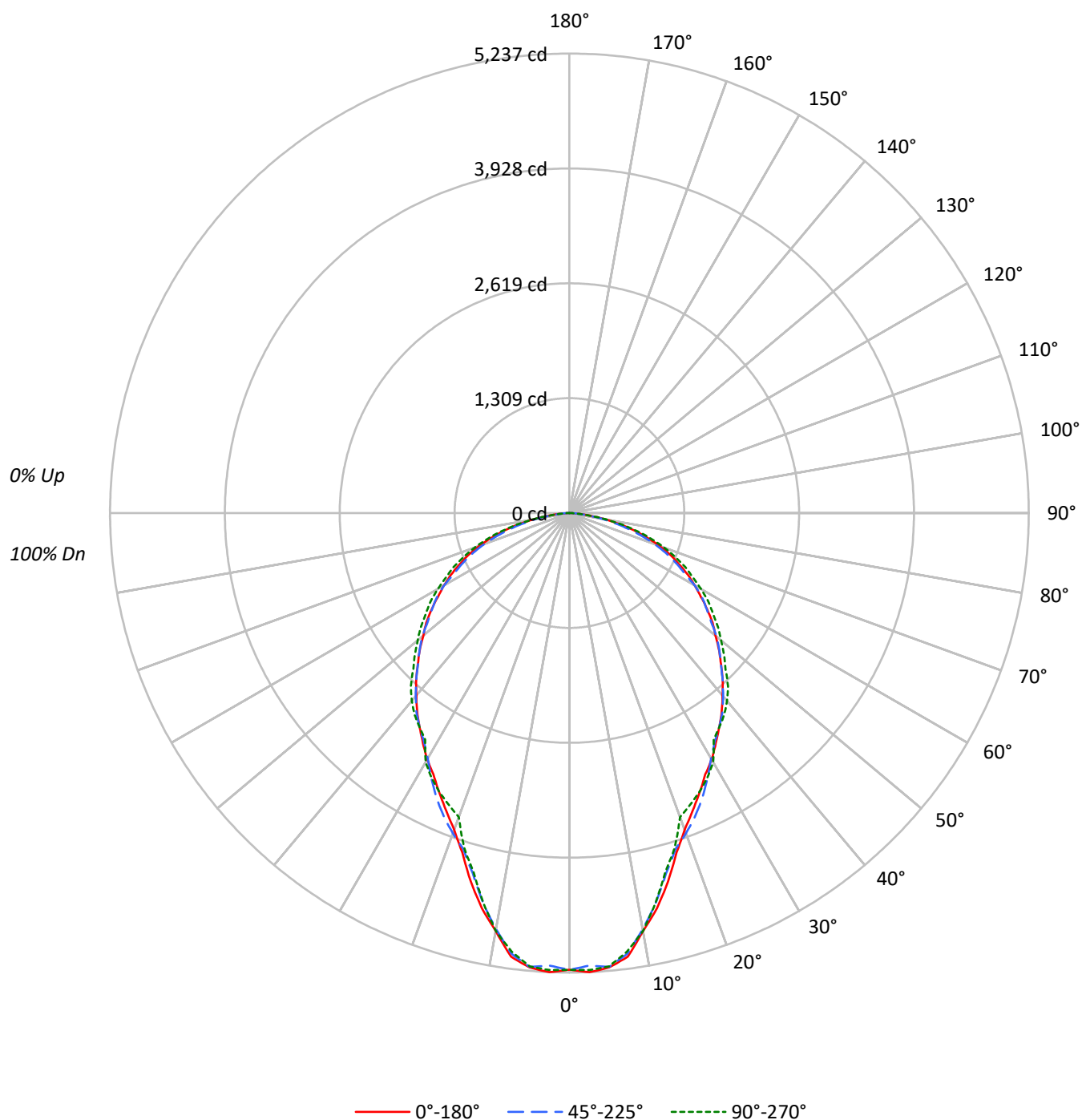
Lumens per Lamp: N/A
Luminaire Lumens: 11131.4 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 117
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

TEST NUMBER: P487082

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5LO-30-120-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P487082

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5LO-30-120-EDD-90

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	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°	7003	7003	7003
5°	7023	7012	7004
10°	6608	6579	6605
15°	6055	5923	5889
20°	5499	5561	5278
25°	5216	5320	5208
30°	5038	5017	5093
35°	4890	4890	4890
40°	4768	4787	4906
45°	4651	4646	4790
50°	4550	4584	4725
55°	4502	4483	4686
60°	4443	4436	4662
65°	4386	4248	4636
70°	4302	4057	4515
75°	3982	3602	4179
80°	3230	2936	3314
85°	2047	1839	1797



TEST NUMBER: P487082

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5LO-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	483.4	4.3
10°-20°	1208.6	10.9
20°-30°	1632.2	14.7
30°-40°	1869.1	16.8
40°-50°	1914.6	17.2
50°-60°	1737.2	15.6
60°-70°	1355.8	12.2
70°-80°	769.0	6.9
80°-90°	161.4	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°	3324.2	29.9
0°-40°	5193.3	46.7
0°-60°	8845.1	79.5
0°-90°	11131.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11131.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5205	5205	5205	5205	5205	
5°	5200	5140	5191	5202	5186	486
15°	4347	4360	4252	4274	4228	1215
25°	3513	3559	3584	3497	3508	1621
35°	2977	2983	2977	2980	2977	1865
45°	2444	2463	2441	2542	2517	1890
55°	1919	1916	1911	1979	1998	1715
65°	1378	1348	1334	1397	1456	1365
75°	766	709	693	734	804	801
85°	133	119	119	111	116	175
90°	0	0	0	0	0	



TEST NUMBER: P487082

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5LO-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5205.0	5205.0	5205.0	5205.0	5205.0
2.5°	5237.4	5196.8	5161.6	5218.5	5213.1
5°	5199.5	5140.0	5191.4	5202.2	5186.0
7.5°	5099.4	5061.5	5064.2	5042.6	5039.8
10°	4836.8	4858.5	4815.2	4853.1	4834.1
12.5°	4612.2	4625.7	4549.9	4566.2	4544.5
15°	4346.9	4360.5	4252.2	4273.9	4227.8
17.5°	4057.3	4106.0	4016.7	4043.8	3995.1
20°	3840.8	3881.4	3884.1	3840.8	3686.5
22.5°	3670.3	3710.9	3743.3	3613.4	3597.2
25°	3513.3	3559.3	3583.6	3497.0	3507.9
27.5°	3356.3	3407.7	3407.7	3426.7	3402.3
30°	3242.6	3264.3	3229.1	3299.4	3277.8
32.5°	3107.3	3115.4	3085.6	3137.0	3061.3
35°	2977.4	2982.8	2977.4	2980.1	2977.4
37.5°	2852.8	2839.3	2863.7	2847.4	2898.9
40°	2714.8	2714.8	2725.6	2752.7	2793.3
42.5°	2587.6	2598.4	2584.9	2660.7	2676.9
45°	2444.1	2463.1	2441.4	2541.6	2517.2
47.5°	2314.2	2322.3	2316.9	2384.6	2390.0
50°	2173.5	2184.3	2189.7	2249.3	2257.4
52.5°	2057.1	2054.4	2035.4	2122.0	2135.6
55°	1919.0	1916.3	1910.9	1978.6	1997.5
57.5°	1778.3	1781.0	1794.5	1832.4	1878.4
60°	1651.1	1637.5	1648.4	1694.4	1732.3
62.5°	1521.2	1496.8	1472.4	1548.2	1583.4
65°	1377.7	1347.9	1334.4	1396.6	1456.2
67.5°	1245.1	1196.4	1188.2	1231.5	1301.9
70°	1093.5	1034.0	1031.2	1063.7	1147.6
72.5°	925.7	874.3	860.7	904.0	979.8
75°	766.0	709.2	692.9	733.5	803.9
77.5°	592.8	546.7	535.9	557.6	614.4
80°	416.8	389.8	378.9	387.1	427.7
82.5°	262.5	243.6	238.2	235.5	257.1
85°	132.6	119.1	119.1	111.0	116.4
87.5°	40.6	37.9	35.2	27.1	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)