

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: P487120

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-35-120-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: P487120
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-LD4-6LO-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

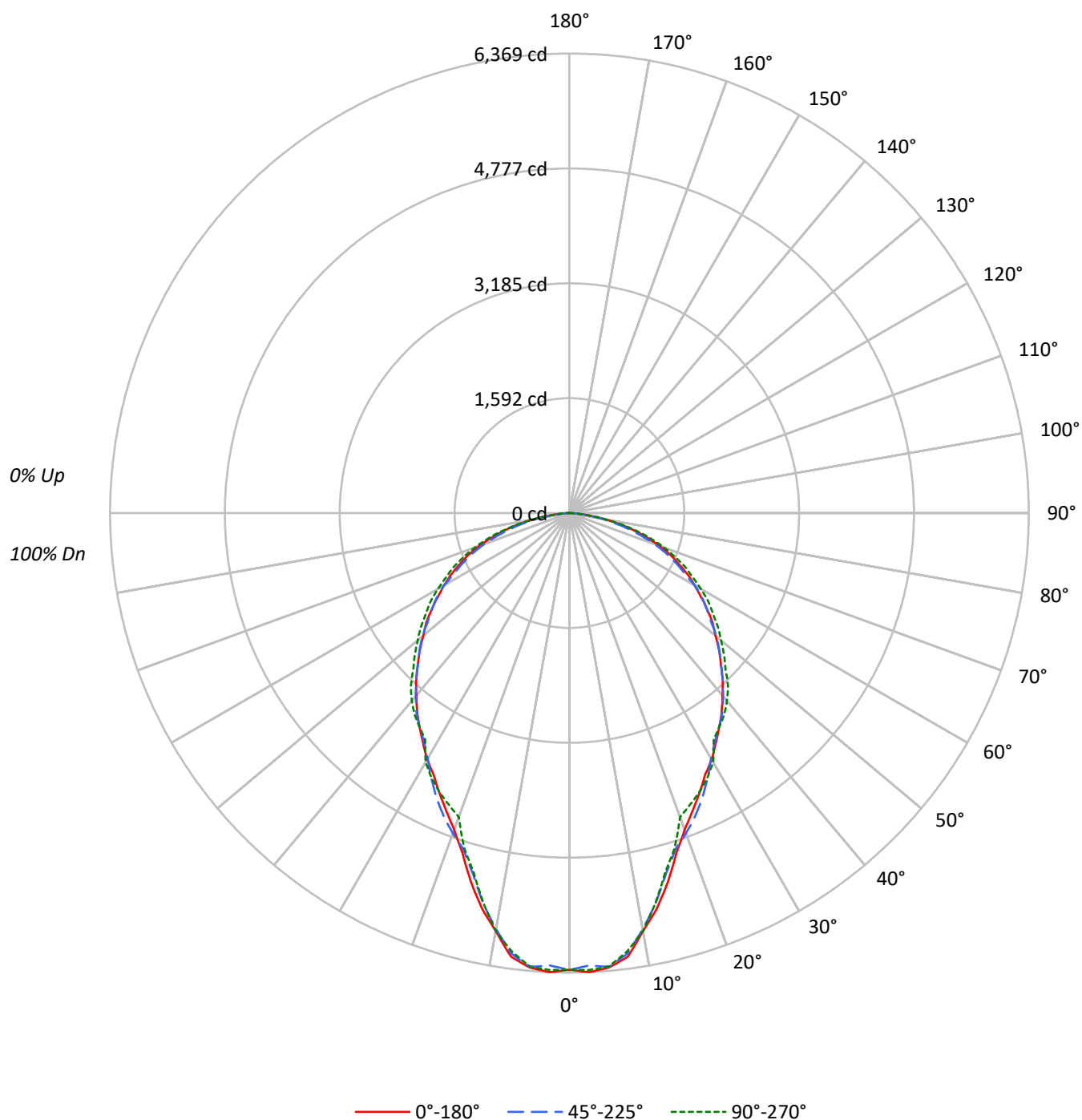
Lumens per Lamp: N/A
Luminaire Lumens: 13536.2 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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: P487120

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-6LO-35-120-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P487120

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-6LO-35-120-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			
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°	8516	8516	8516
5°	8540	8527	8518
10°	8036	8000	8031
15°	7363	7203	7161
20°	6687	6763	6419
25°	6343	6470	6333
30°	6126	6101	6193
35°	5947	5947	5947
40°	5798	5822	5966
45°	5656	5649	5824
50°	5532	5574	5746
55°	5474	5451	5698
60°	5403	5394	5669
65°	5334	5166	5638
70°	5231	4933	5490
75°	4842	4380	5082
80°	3928	3570	4029
85°	2490	2235	2184



TEST NUMBER: P487120

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-6LO-35-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	587.9	4.3
10°-20°	1469.7	10.9
20°-30°	1984.8	14.7
30°-40°	2272.9	16.8
40°-50°	2328.2	17.2
50°-60°	2112.5	15.6
60°-70°	1648.8	12.2
70°-80°	935.2	6.9
80°-90°	196.3	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°	4042.4	29.9
0°-40°	6315.3	46.7
0°-60°	10756.0	79.5
0°-90°	13536.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13536.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6329	6329	6329	6329	6329	
5°	6323	6250	6313	6326	6306	591
15°	5286	5302	5171	5197	5141	1477
25°	4272	4328	4358	4252	4266	1971
35°	3621	3627	3621	3624	3621	2268
45°	2972	2995	2969	3091	3061	2298
55°	2334	2330	2324	2406	2429	2085
65°	1675	1639	1623	1698	1771	1660
75°	932	862	843	892	978	974
85°	161	145	145	135	142	213
90°	0	0	0	0	0	



TEST NUMBER: P487120

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-6LO-35-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6329.4	6329.4	6329.4	6329.4	6329.4
2.5°	6368.9	6319.5	6276.8	6345.9	6339.3
5°	6322.8	6250.4	6313.0	6326.1	6306.4
7.5°	6201.1	6155.0	6158.3	6131.9	6128.6
10°	5881.8	5908.1	5855.5	5901.5	5878.5
12.5°	5608.6	5625.1	5532.9	5552.6	5526.3
15°	5286.0	5302.5	5170.8	5197.2	5141.2
17.5°	4933.9	4993.1	4884.5	4917.4	4858.1
20°	4670.5	4719.9	4723.2	4670.5	4482.9
22.5°	4463.2	4512.5	4552.0	4394.1	4374.3
25°	4272.3	4328.2	4357.9	4252.5	4265.7
27.5°	4081.4	4143.9	4143.9	4166.9	4137.3
30°	3943.1	3969.5	3926.7	4012.3	3985.9
32.5°	3778.6	3788.4	3752.2	3814.8	3722.6
35°	3620.6	3627.2	3620.6	3623.9	3620.6
37.5°	3469.2	3452.7	3482.3	3462.6	3525.1
40°	3301.3	3301.3	3314.5	3347.4	3396.8
42.5°	3146.6	3159.8	3143.3	3235.5	3255.2
45°	2972.2	2995.2	2968.9	3090.7	3061.0
47.5°	2814.2	2824.0	2817.5	2899.7	2906.3
50°	2643.0	2656.2	2662.8	2735.2	2745.1
52.5°	2501.5	2498.2	2475.2	2580.5	2596.9
55°	2333.6	2330.3	2323.7	2406.0	2429.1
57.5°	2162.5	2165.8	2182.2	2228.3	2284.3
60°	2007.8	1991.3	2004.5	2060.4	2106.5
62.5°	1849.8	1820.2	1790.5	1882.7	1925.5
65°	1675.3	1639.1	1622.7	1698.4	1770.8
67.5°	1514.1	1454.8	1444.9	1497.6	1583.2
70°	1329.7	1257.3	1254.0	1293.5	1395.6
72.5°	1125.7	1063.1	1046.7	1099.3	1191.5
75°	931.5	862.4	842.6	892.0	977.6
77.5°	720.8	664.9	651.7	678.0	747.2
80°	506.9	474.0	460.8	470.7	520.0
82.5°	319.3	296.2	289.6	286.4	312.7
85°	161.3	144.8	144.8	134.9	141.5
87.5°	49.4	46.1	42.8	32.9	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)