

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: P487041

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4HI-50-120-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: P487041
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-LD4-4HI-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

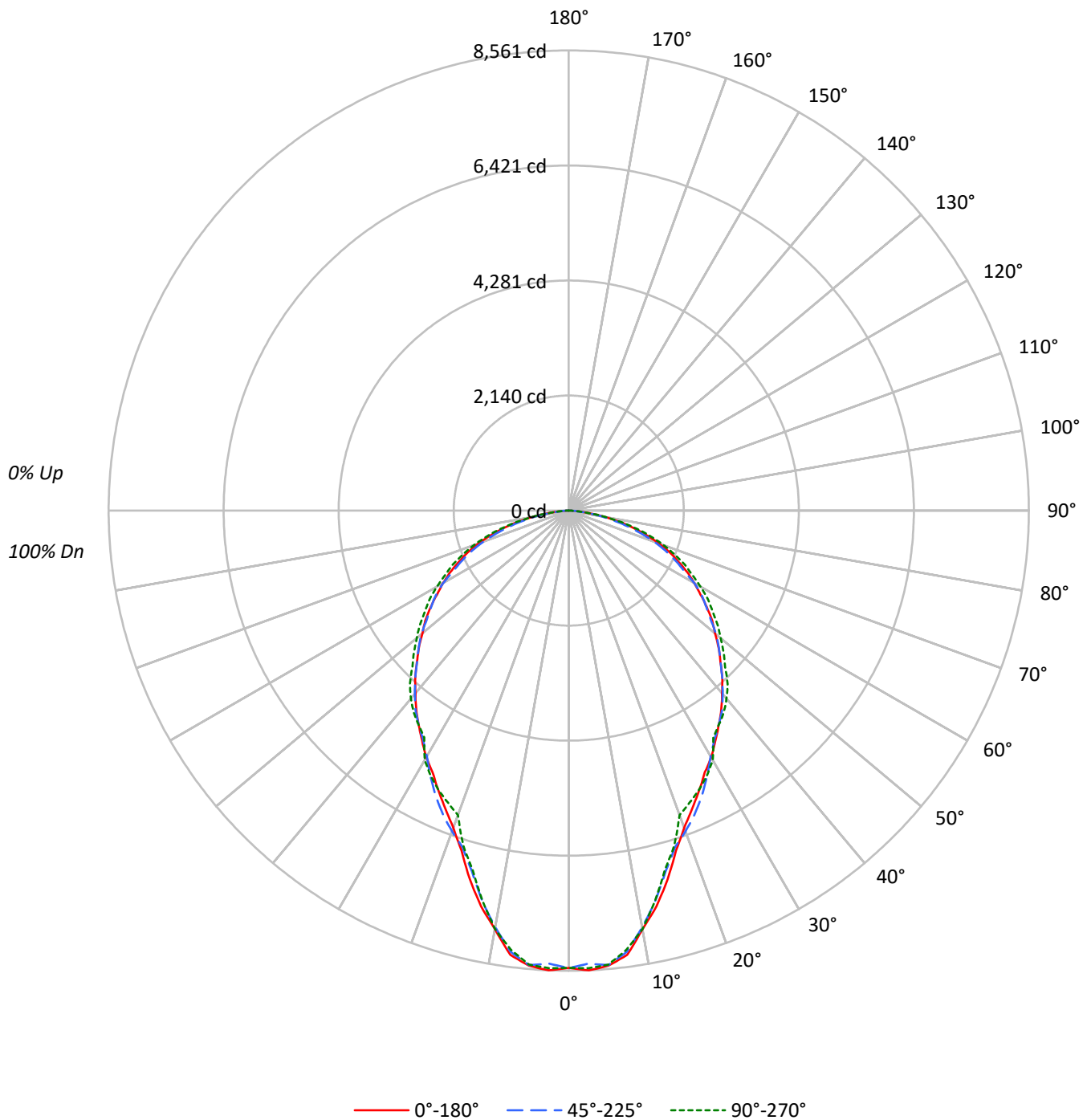
Lumens per Lamp: N/A
Luminaire Lumens: 18195.5 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 176
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: P487041

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4HI-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P487041

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4HI-50-120-EDD

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	50	30	10
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°	11448	11448	11448
5°	11479	11461	11449
10°	10802	10754	10796
15°	9898	9682	9627
20°	8989	9091	8628
25°	8526	8697	8513
30°	8235	8201	8324
35°	7994	7994	7994
40°	7794	7825	8020
45°	7602	7594	7829
50°	7437	7492	7724
55°	7359	7327	7659
60°	7263	7251	7620
65°	7170	6944	7578
70°	7032	6631	7380
75°	6509	5888	6831
80°	5280	4799	5417
85°	3347	3006	2936



TEST NUMBER: P487041

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4HI-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	790.2	4.3
10°-20°	1975.6	10.9
20°-30°	2668.0	14.7
30°-40°	3055.3	16.8
40°-50°	3129.6	17.2
50°-60°	2839.7	15.6
60°-70°	2216.3	12.2
70°-80°	1257.0	6.9
80°-90°	263.8	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°	5433.8	29.9
0°-40°	8489.1	46.7
0°-60°	14458.3	79.5
0°-90°	18195.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18195.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8508	8508	8508	8508	8508	
5°	8499	8402	8486	8504	8477	794
15°	7106	7128	6951	6986	6911	1986
25°	5743	5818	5858	5716	5734	2650
35°	4867	4876	4867	4871	4867	3049
45°	3995	4026	3991	4154	4115	3089
55°	3137	3132	3124	3234	3265	2803
65°	2252	2203	2181	2283	2380	2232
75°	1252	1159	1133	1199	1314	1310
85°	217	195	195	181	190	286
90°	0	0	0	0	0	



TEST NUMBER: P487041

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4HI-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8508.1	8508.1	8508.1	8508.1	8508.1
2.5°	8561.2	8494.8	8437.3	8530.2	8521.3
5°	8499.2	8401.9	8485.9	8503.6	8477.1
7.5°	8335.5	8273.6	8278.0	8242.6	8238.2
10°	7906.4	7941.7	7871.0	7932.9	7901.9
12.5°	7539.1	7561.3	7437.4	7463.9	7428.5
15°	7105.5	7127.7	6950.7	6986.1	6910.9
17.5°	6632.1	6711.8	6565.8	6610.0	6530.4
20°	6278.2	6344.5	6349.0	6278.2	6026.0
22.5°	5999.4	6065.8	6118.9	5906.5	5880.0
25°	5742.8	5818.0	5857.9	5716.3	5734.0
27.5°	5486.2	5570.3	5570.3	5601.3	5561.4
30°	5300.4	5335.8	5278.3	5393.3	5357.9
32.5°	5079.2	5092.5	5043.8	5127.8	5004.0
35°	4866.8	4875.7	4866.8	4871.2	4866.8
37.5°	4663.3	4641.2	4681.0	4654.4	4738.5
40°	4437.6	4437.6	4455.3	4499.6	4566.0
42.5°	4229.7	4247.4	4225.3	4349.2	4375.7
45°	3995.2	4026.2	3990.8	4154.5	4114.7
47.5°	3782.8	3796.1	3787.3	3897.9	3906.7
50°	3552.8	3570.5	3579.3	3676.7	3689.9
52.5°	3362.5	3358.1	3327.1	3468.7	3490.8
55°	3136.9	3132.5	3123.6	3234.2	3265.2
57.5°	2906.8	2911.2	2933.4	2995.3	3070.5
60°	2698.9	2676.7	2694.4	2769.7	2831.6
62.5°	2486.5	2446.7	2406.9	2530.7	2588.3
65°	2252.0	2203.3	2181.2	2283.0	2380.3
67.5°	2035.2	1955.6	1942.3	2013.1	2128.1
70°	1787.4	1690.1	1685.7	1738.8	1875.9
72.5°	1513.1	1429.1	1407.0	1477.7	1601.6
75°	1252.1	1159.2	1132.6	1199.0	1314.0
77.5°	968.9	893.7	876.0	911.4	1004.3
80°	681.4	637.1	619.4	632.7	699.1
82.5°	429.2	398.2	389.3	384.9	420.3
85°	216.8	194.7	194.7	181.4	190.2
87.5°	66.4	61.9	57.5	44.2	48.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)