

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: P487068

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5HI-27-120-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: P487068
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-LD4-5HI-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

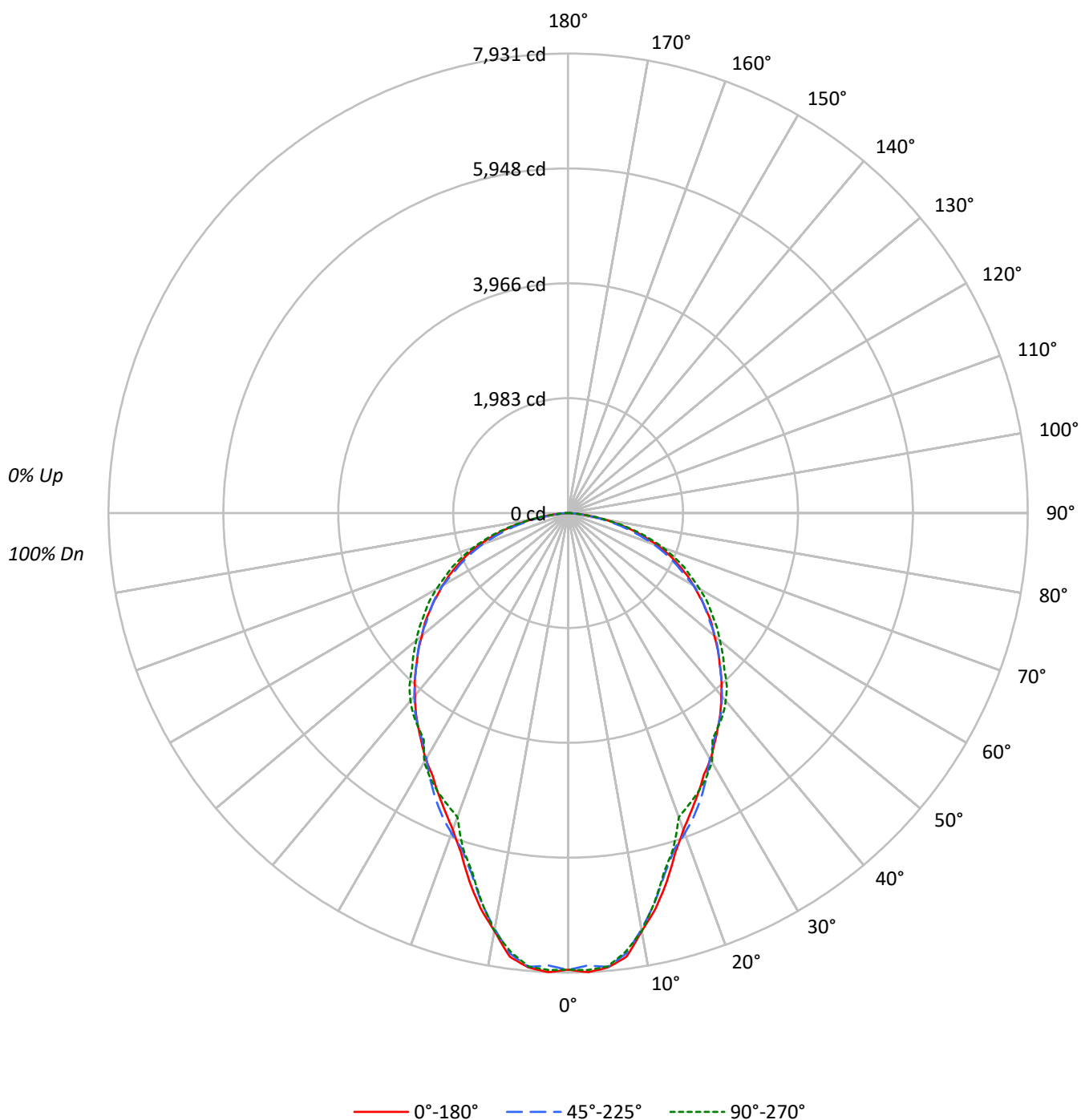
Lumens per Lamp: N/A
Luminaire Lumens: 16856.1 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 220
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: P487068

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5HI-27-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P487068

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5HI-27-120-EDD-90

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°	10605	10605	10605
5°	10634	10618	10607
10°	10007	9962	10001
15°	9169	8969	8918
20°	8328	8422	7993
25°	7898	8056	7886
30°	7629	7597	7711
35°	7406	7406	7406
40°	7221	7249	7429
45°	7042	7035	7253
50°	6889	6941	7155
55°	6817	6788	7096
60°	6728	6717	7059
65°	6642	6433	7020
70°	6514	6143	6836
75°	6030	5455	6328
80°	4891	4446	5018
85°	3100	2783	2720



TEST NUMBER: P487068

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5HI-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	732.1	4.3
10°-20°	1830.2	10.9
20°-30°	2471.6	14.7
30°-40°	2830.4	16.8
40°-50°	2899.2	17.2
50°-60°	2630.6	15.6
60°-70°	2053.1	12.2
70°-80°	1164.5	6.9
80°-90°	244.4	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°	5033.8	29.9
0°-40°	7864.2	46.7
0°-60°	13394.0	79.5
0°-90°	16856.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16856.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7882	7882	7882	7882	7882	
5°	7874	7783	7861	7878	7853	735
15°	6582	6603	6439	6472	6402	1840
25°	5320	5390	5427	5296	5312	2455
35°	4509	4517	4509	4513	4509	2824
45°	3701	3730	3697	3849	3812	2862
55°	2906	2902	2894	2996	3025	2597
65°	2086	2041	2021	2115	2205	2068
75°	1160	1074	1049	1111	1217	1213
85°	201	180	180	168	176	265
90°	0	0	0	0	0	



TEST NUMBER: P487068

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5HI-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7881.8	7881.8	7881.8	7881.8	7881.8
2.5°	7931.0	7869.5	7816.2	7902.3	7894.1
5°	7873.6	7783.4	7861.3	7877.7	7853.1
7.5°	7721.9	7664.5	7668.6	7635.9	7631.8
10°	7324.4	7357.1	7291.6	7348.9	7320.3
12.5°	6984.2	7004.7	6889.9	6914.5	6881.7
15°	6582.5	6603.0	6439.0	6471.8	6402.1
17.5°	6143.9	6217.7	6082.5	6123.4	6049.7
20°	5816.0	5877.5	5881.6	5816.0	5582.4
22.5°	5557.8	5619.3	5668.5	5471.7	5447.2
25°	5320.1	5389.8	5426.7	5295.5	5311.9
27.5°	5082.4	5160.2	5160.2	5188.9	5152.0
30°	4910.2	4943.0	4889.7	4996.3	4963.5
32.5°	4705.3	4717.6	4672.5	4750.4	4635.6
35°	4508.6	4516.8	4508.6	4512.7	4508.6
37.5°	4320.0	4299.5	4336.4	4311.8	4389.7
40°	4111.0	4111.0	4127.4	4168.4	4229.8
42.5°	3918.3	3934.7	3914.2	4029.0	4053.6
45°	3701.1	3729.8	3697.0	3848.7	3811.8
47.5°	3504.4	3516.7	3508.5	3610.9	3619.1
50°	3291.2	3307.6	3315.8	3406.0	3418.3
52.5°	3115.0	3110.9	3082.2	3213.4	3233.9
55°	2906.0	2901.9	2893.7	2996.1	3024.8
57.5°	2692.8	2696.9	2717.4	2774.8	2844.5
60°	2500.2	2479.7	2496.1	2565.8	2623.2
62.5°	2303.5	2266.6	2229.7	2344.4	2397.7
65°	2086.2	2041.1	2020.7	2114.9	2205.1
67.5°	1885.4	1811.6	1799.3	1864.9	1971.5
70°	1655.9	1565.7	1561.6	1610.8	1737.8
72.5°	1401.8	1323.9	1303.4	1369.0	1483.7
75°	1159.9	1073.9	1049.3	1110.7	1217.3
77.5°	897.6	827.9	811.5	844.3	930.4
80°	631.2	590.2	573.8	586.1	647.6
82.5°	397.6	368.9	360.7	356.6	389.4
85°	200.8	180.3	180.3	168.0	176.2
87.5°	61.5	57.4	53.3	41.0	45.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)