

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: P486936

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1LO-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: P486936
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-LD4-1LO-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

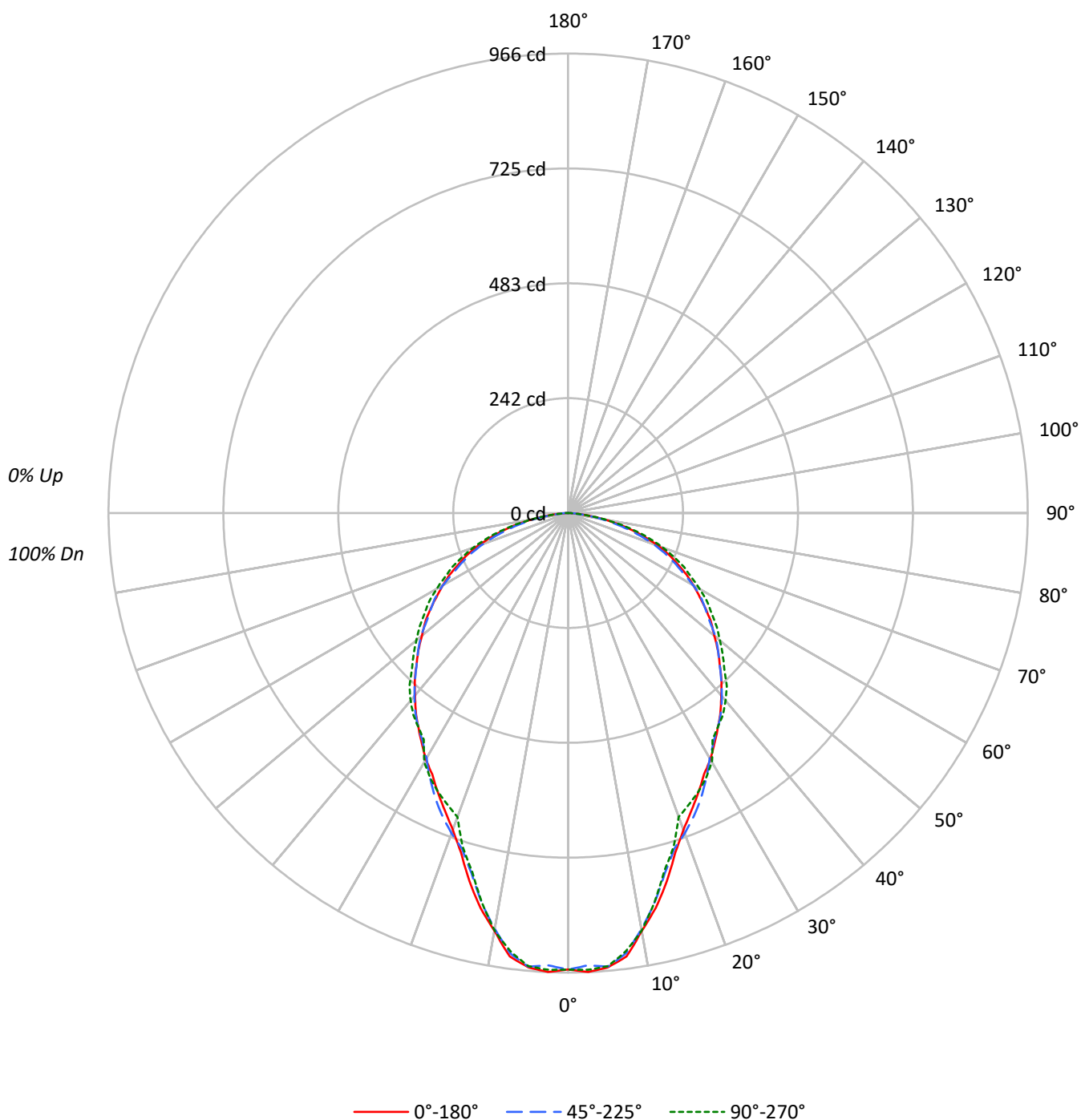
Lumens per Lamp: N/A
Luminaire Lumens: 2052.4 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

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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				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°	1291	1291	1291
5°	1295	1293	1291
10°	1218	1213	1218
15°	1116	1092	1086
20°	1014	1025	973
25°	962	981	960
30°	929	925	939
35°	902	902	902
40°	879	883	905
45°	857	856	883
50°	839	845	871
55°	830	826	864
60°	819	818	859
65°	809	783	855
70°	793	748	832
75°	734	664	770
80°	596	542	611
85°	378	340	332



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	4.3
10°-20°	222.8	10.9
20°-30°	300.9	14.7
30°-40°	344.6	16.8
40°-50°	353.0	17.2
50°-60°	320.3	15.6
60°-70°	250.0	12.2
70°-80°	141.8	6.9
80°-90°	29.8	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°	612.9	29.9
0°-40°	957.5	46.7
0°-60°	1630.9	79.5
0°-90°	2052.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2052.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	948	957	959	956	90
15°	802	804	784	788	780	224
25°	648	656	661	645	647	299
35°	549	550	549	550	549	344
45°	451	454	450	469	464	348
55°	354	353	352	365	368	316
65°	254	248	246	258	268	252
75°	141	131	128	135	148	148
85°	24	22	22	20	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	959.7	959.7	959.7	959.7	959.7
2.5°	965.7	958.2	951.7	962.2	961.2
5°	958.7	947.7	957.2	959.2	956.2
7.5°	940.2	933.2	933.7	929.7	929.2
10°	891.8	895.8	887.8	894.8	891.3
12.5°	850.4	852.9	838.9	841.9	837.9
15°	801.5	804.0	784.0	788.0	779.5
17.5°	748.1	757.1	740.6	745.6	736.6
20°	708.2	715.6	716.1	708.2	679.7
22.5°	676.7	684.2	690.2	666.2	663.2
25°	647.8	656.3	660.8	644.8	646.8
27.5°	618.8	628.3	628.3	631.8	627.3
30°	597.9	601.9	595.4	608.3	604.4
32.5°	572.9	574.4	568.9	578.4	564.4
35°	549.0	550.0	549.0	549.5	549.0
37.5°	526.0	523.5	528.0	525.0	534.5
40°	500.6	500.6	502.5	507.5	515.0
42.5°	477.1	479.1	476.6	490.6	493.6
45°	450.6	454.1	450.1	468.6	464.1
47.5°	426.7	428.2	427.2	439.7	440.7
50°	400.7	402.7	403.7	414.7	416.2
52.5°	379.3	378.8	375.3	391.3	393.8
55°	353.8	353.3	352.3	364.8	368.3
57.5°	327.9	328.4	330.9	337.9	346.3
60°	304.4	301.9	303.9	312.4	319.4
62.5°	280.5	276.0	271.5	285.5	291.9
65°	254.0	248.5	246.0	257.5	268.5
67.5°	229.6	220.6	219.1	227.1	240.0
70°	201.6	190.6	190.1	196.1	211.6
72.5°	170.7	161.2	158.7	166.7	180.7
75°	141.2	130.8	127.8	135.2	148.2
77.5°	109.3	100.8	98.8	102.8	113.3
80°	76.9	71.9	69.9	71.4	78.9
82.5°	48.4	44.9	43.9	43.4	47.4
85°	24.5	22.0	22.0	20.5	21.5
87.5°	7.5	7.0	6.5	5.0	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)