

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: P485643

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-30-120-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: P485643
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-24-2-INS-89BC-LD4-1LO-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

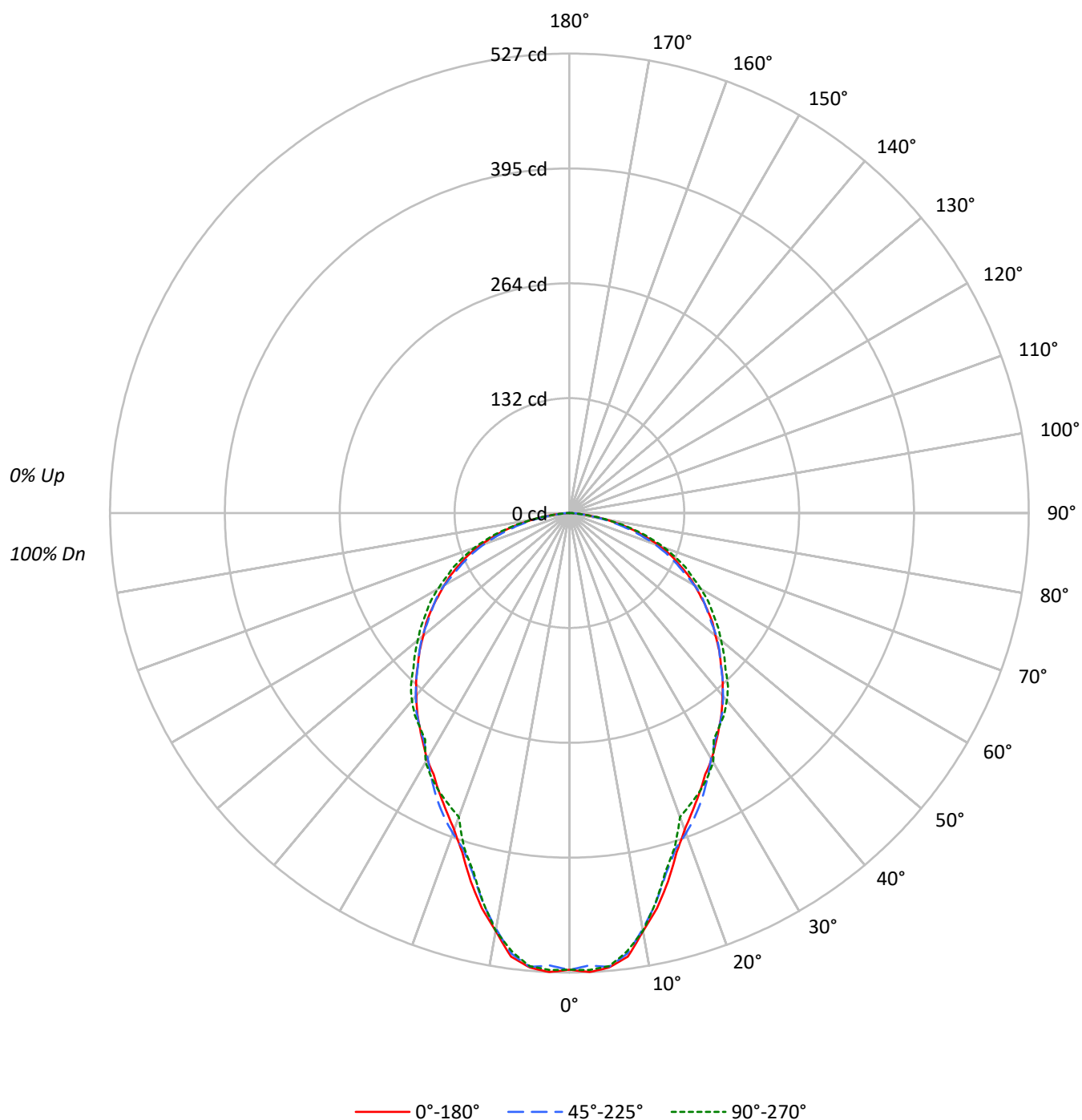
Lumens per Lamp: N/A
Luminaire Lumens: 1119.9 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1409	1409	1409
5°	1413	1411	1409
10°	1330	1324	1329
15°	1218	1192	1185
20°	1107	1119	1062
25°	1050	1070	1048
30°	1014	1010	1025
35°	984	984	984
40°	959	963	987
45°	936	935	964
50°	916	922	951
55°	906	902	943
60°	894	892	938
65°	883	855	933
70°	865	817	909
75°	802	725	841
80°	649	590	666
85°	411	371	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	4.3
10°-20°	121.6	10.9
20°-30°	164.2	14.7
30°-40°	188.0	16.8
40°-50°	192.6	17.2
50°-60°	174.8	15.6
60°-70°	136.4	12.2
70°-80°	77.4	6.9
80°-90°	16.2	1.4
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°	334.4	29.9
0°-40°	522.5	46.7
0°-60°	889.9	79.5
0°-90°	1119.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1119.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	523	517	522	523	522	49
15°	437	439	428	430	425	122
25°	354	358	360	352	353	163
35°	300	300	300	300	300	188
45°	246	248	246	256	253	190
55°	193	193	192	199	201	173
65°	139	136	134	140	146	137
75°	77	71	70	74	81	81
85°	13	12	12	11	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	523.7	523.7	523.7	523.7	523.7
2.5°	526.9	522.8	519.3	525.0	524.5
5°	523.1	517.1	522.3	523.4	521.7
7.5°	513.0	509.2	509.5	507.3	507.0
10°	486.6	488.8	484.4	488.3	486.3
12.5°	464.0	465.4	457.8	459.4	457.2
15°	437.3	438.7	427.8	430.0	425.4
17.5°	408.2	413.1	404.1	406.8	401.9
20°	386.4	390.5	390.8	386.4	370.9
22.5°	369.3	373.3	376.6	363.5	361.9
25°	353.5	358.1	360.5	351.8	352.9
27.5°	337.7	342.8	342.8	344.7	342.3
30°	326.2	328.4	324.9	331.9	329.8
32.5°	312.6	313.4	310.4	315.6	308.0
35°	299.5	300.1	299.5	299.8	299.5
37.5°	287.0	285.7	288.1	286.5	291.6
40°	273.1	273.1	274.2	276.9	281.0
42.5°	260.3	261.4	260.1	267.7	269.3
45°	245.9	247.8	245.6	255.7	253.3
47.5°	232.8	233.6	233.1	239.9	240.5
50°	218.7	219.8	220.3	226.3	227.1
52.5°	207.0	206.7	204.8	213.5	214.9
55°	193.1	192.8	192.3	199.1	201.0
57.5°	178.9	179.2	180.5	184.4	189.0
60°	166.1	164.7	165.8	170.5	174.3
62.5°	153.0	150.6	148.1	155.8	159.3
65°	138.6	135.6	134.2	140.5	146.5
67.5°	125.3	120.4	119.5	123.9	131.0
70°	110.0	104.0	103.8	107.0	115.5
72.5°	93.1	88.0	86.6	91.0	98.6
75°	77.1	71.3	69.7	73.8	80.9
77.5°	59.6	55.0	53.9	56.1	61.8
80°	41.9	39.2	38.1	38.9	43.0
82.5°	26.4	24.5	24.0	23.7	25.9
85°	13.3	12.0	12.0	11.2	11.7
87.5°	4.1	3.8	3.5	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)