

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: P485652

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-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: P485652
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-LD4-1STD-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

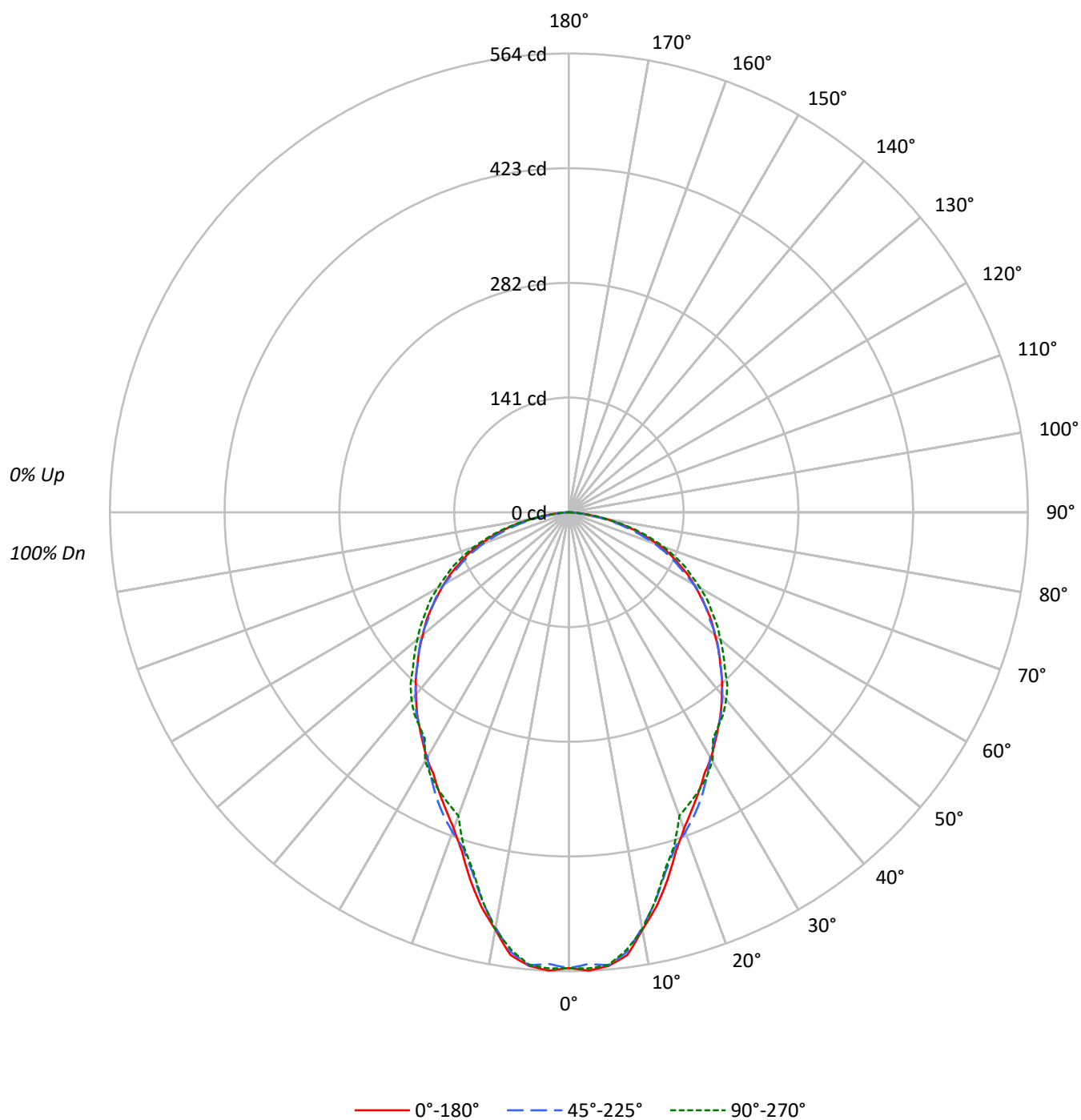
Lumens per Lamp: N/A
Luminaire Lumens: 1198.3 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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				10				0
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°	1508	1508	1508
5°	1512	1510	1508
10°	1423	1417	1422
15°	1304	1275	1268
20°	1184	1197	1137
25°	1123	1146	1121
30°	1085	1080	1097
35°	1053	1053	1053
40°	1026	1031	1056
45°	1001	1000	1031
50°	980	987	1017
55°	969	965	1009
60°	956	955	1004
65°	944	914	998
70°	926	873	972
75°	858	776	899
80°	696	632	713
85°	442	395	386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	4.3
10°-20°	130.1	10.9
20°-30°	175.7	14.7
30°-40°	201.2	16.8
40°-50°	206.1	17.2
50°-60°	187.0	15.6
60°-70°	146.0	12.2
70°-80°	82.8	6.9
80°-90°	17.4	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°	357.9	29.9
0°-40°	559.1	46.7
0°-60°	952.2	79.5
0°-90°	1198.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1198.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	560	553	559	560	558	52
15°	468	469	458	460	455	131
25°	378	383	386	376	378	175
35°	320	321	320	321	320	201
45°	263	265	263	274	271	203
55°	207	206	206	213	215	185
65°	148	145	144	150	157	147
75°	82	76	75	79	86	86
85°	14	13	13	12	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	560.3	560.3	560.3	560.3	560.3
2.5°	563.8	559.4	555.7	561.8	561.2
5°	559.7	553.3	558.9	560.0	558.3
7.5°	549.0	544.9	545.2	542.8	542.5
10°	520.7	523.0	518.4	522.4	520.4
12.5°	496.5	498.0	489.8	491.6	489.2
15°	467.9	469.4	457.8	460.1	455.1
17.5°	436.8	442.0	432.4	435.3	430.1
20°	413.5	417.8	418.1	413.5	396.9
22.5°	395.1	399.5	403.0	389.0	387.2
25°	378.2	383.2	385.8	376.5	377.6
27.5°	361.3	366.8	366.8	368.9	366.3
30°	349.1	351.4	347.6	355.2	352.9
32.5°	334.5	335.4	332.2	337.7	329.5
35°	320.5	321.1	320.5	320.8	320.5
37.5°	307.1	305.7	308.3	306.5	312.1
40°	292.2	292.2	293.4	296.3	300.7
42.5°	278.6	279.7	278.3	286.4	288.2
45°	263.1	265.2	262.8	273.6	271.0
47.5°	249.1	250.0	249.4	256.7	257.3
50°	234.0	235.1	235.7	242.1	243.0
52.5°	221.4	221.2	219.1	228.4	229.9
55°	206.6	206.3	205.7	213.0	215.0
57.5°	191.4	191.7	193.2	197.3	202.2
60°	177.7	176.3	177.4	182.4	186.5
62.5°	163.8	161.1	158.5	166.7	170.5
65°	148.3	145.1	143.6	150.3	156.8
67.5°	134.0	128.8	127.9	132.6	140.2
70°	117.7	111.3	111.0	114.5	123.5
72.5°	99.7	94.1	92.7	97.3	105.5
75°	82.5	76.3	74.6	79.0	86.5
77.5°	63.8	58.9	57.7	60.0	66.1
80°	44.9	42.0	40.8	41.7	46.0
82.5°	28.3	26.2	25.6	25.3	27.7
85°	14.3	12.8	12.8	11.9	12.5
87.5°	4.4	4.1	3.8	2.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)