

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: P485762

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4STD-30-120-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: P485762
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-LD4-4STD-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

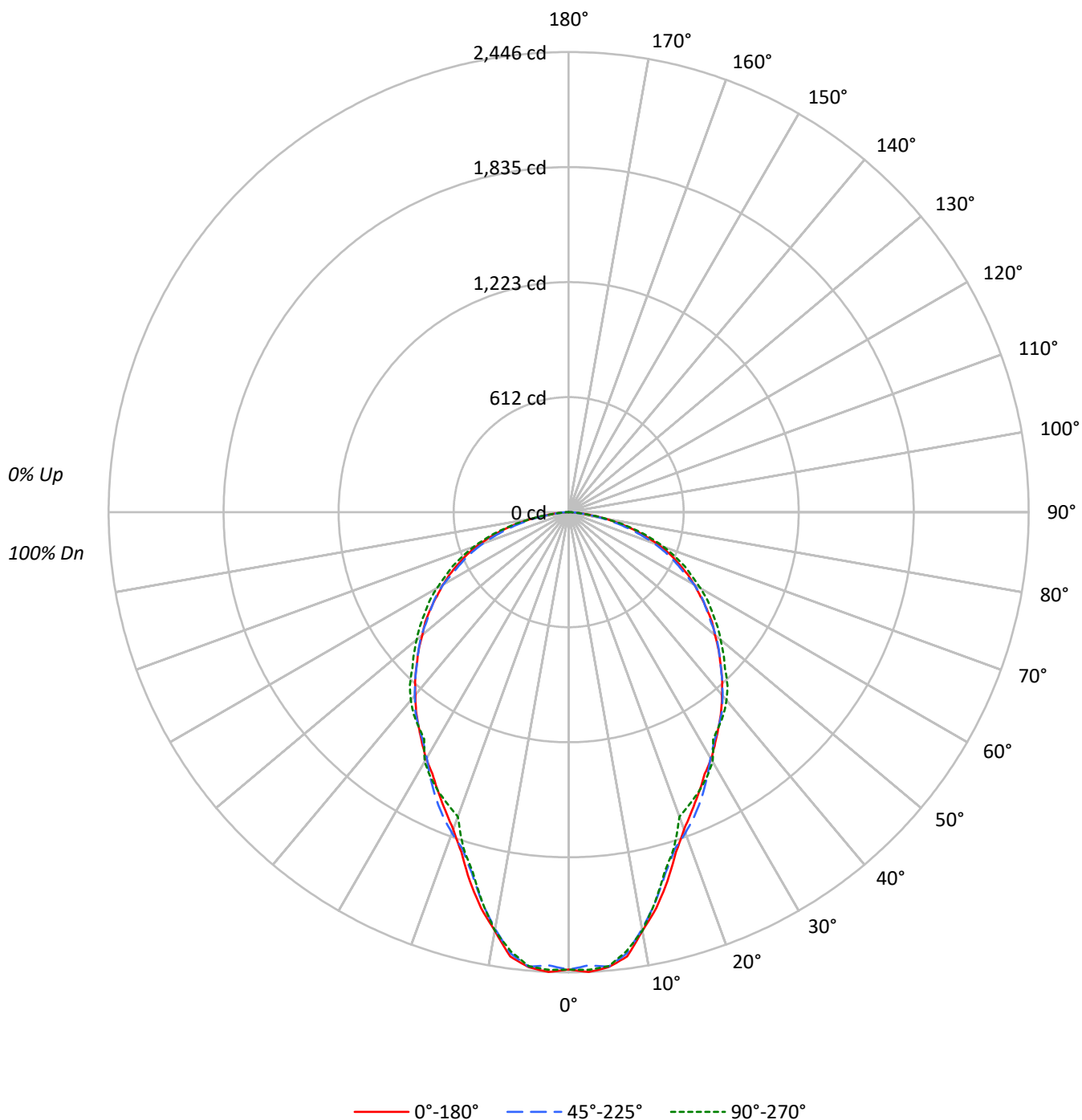
Lumens per Lamp: N/A
Luminaire Lumens: 5199.2 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6542	6542	6542
5°	6560	6550	6543
10°	6173	6146	6170
15°	5656	5533	5501
20°	5137	5195	4931
25°	4872	4970	4865
30°	4706	4686	4757
35°	4568	4568	4568
40°	4454	4472	4583
45°	4344	4340	4474
50°	4250	4282	4414
55°	4205	4187	4377
60°	4151	4144	4355
65°	4097	3969	4331
70°	4018	3790	4217
75°	3720	3365	3904
80°	3017	2743	3095
85°	1911	1717	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.8	4.3
10°-20°	564.5	10.9
20°-30°	762.4	14.7
30°-40°	873.0	16.8
40°-50°	894.2	17.2
50°-60°	811.4	15.6
60°-70°	633.3	12.2
70°-80°	359.2	6.9
80°-90°	75.4	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°	1552.7	29.9
0°-40°	2425.7	46.7
0°-60°	4131.3	79.5
0°-90°	5199.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5199.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2431	2431	2431	2431	2431	
5°	2429	2401	2425	2430	2422	227
15°	2030	2037	1986	1996	1975	567
25°	1641	1662	1674	1633	1638	757
35°	1391	1393	1391	1392	1391	871
45°	1142	1150	1140	1187	1176	883
55°	896	895	892	924	933	801
65°	644	630	623	652	680	638
75°	358	331	324	343	376	374
85°	62	56	56	52	54	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2431.1	2431.1	2431.1	2431.1	2431.1
2.5°	2446.3	2427.3	2410.9	2437.4	2434.9
5°	2428.6	2400.8	2424.8	2429.8	2422.3
7.5°	2381.8	2364.1	2365.4	2355.2	2354.0
10°	2259.2	2269.3	2249.1	2266.8	2257.9
12.5°	2154.2	2160.6	2125.2	2132.7	2122.6
15°	2030.3	2036.7	1986.1	1996.2	1974.7
17.5°	1895.1	1917.8	1876.1	1888.8	1866.0
20°	1793.9	1812.9	1814.2	1793.9	1721.9
22.5°	1714.3	1733.3	1748.4	1687.7	1680.2
25°	1641.0	1662.5	1673.8	1633.4	1638.4
27.5°	1567.6	1591.7	1591.7	1600.5	1589.1
30°	1514.5	1524.7	1508.2	1541.1	1531.0
32.5°	1451.3	1455.1	1441.2	1465.2	1429.8
35°	1390.6	1393.2	1390.6	1391.9	1390.6
37.5°	1332.5	1326.2	1337.5	1330.0	1354.0
40°	1268.0	1268.0	1273.1	1285.7	1304.7
42.5°	1208.6	1213.7	1207.3	1242.7	1250.3
45°	1141.6	1150.4	1140.3	1187.1	1175.7
47.5°	1080.9	1084.7	1082.2	1113.8	1116.3
50°	1015.2	1020.2	1022.8	1050.6	1054.4
52.5°	960.8	959.5	950.7	991.2	997.5
55°	896.3	895.1	892.5	924.1	933.0
57.5°	830.6	831.9	838.2	855.9	877.4
60°	771.2	764.9	769.9	791.4	809.1
62.5°	710.5	699.1	687.7	723.1	739.6
65°	643.5	629.6	623.3	652.3	680.2
67.5°	581.5	558.8	555.0	575.2	608.1
70°	510.7	482.9	481.7	496.8	536.0
72.5°	432.4	408.3	402.0	422.3	457.6
75°	357.8	331.2	323.6	342.6	375.5
77.5°	276.9	255.4	250.3	260.4	287.0
80°	194.7	182.0	177.0	180.8	199.7
82.5°	122.6	113.8	111.3	110.0	120.1
85°	61.9	55.6	55.6	51.8	54.4
87.5°	19.0	17.7	16.4	12.6	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)