

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: P485833

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-27-120-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: P485833
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-LD4-6STD-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

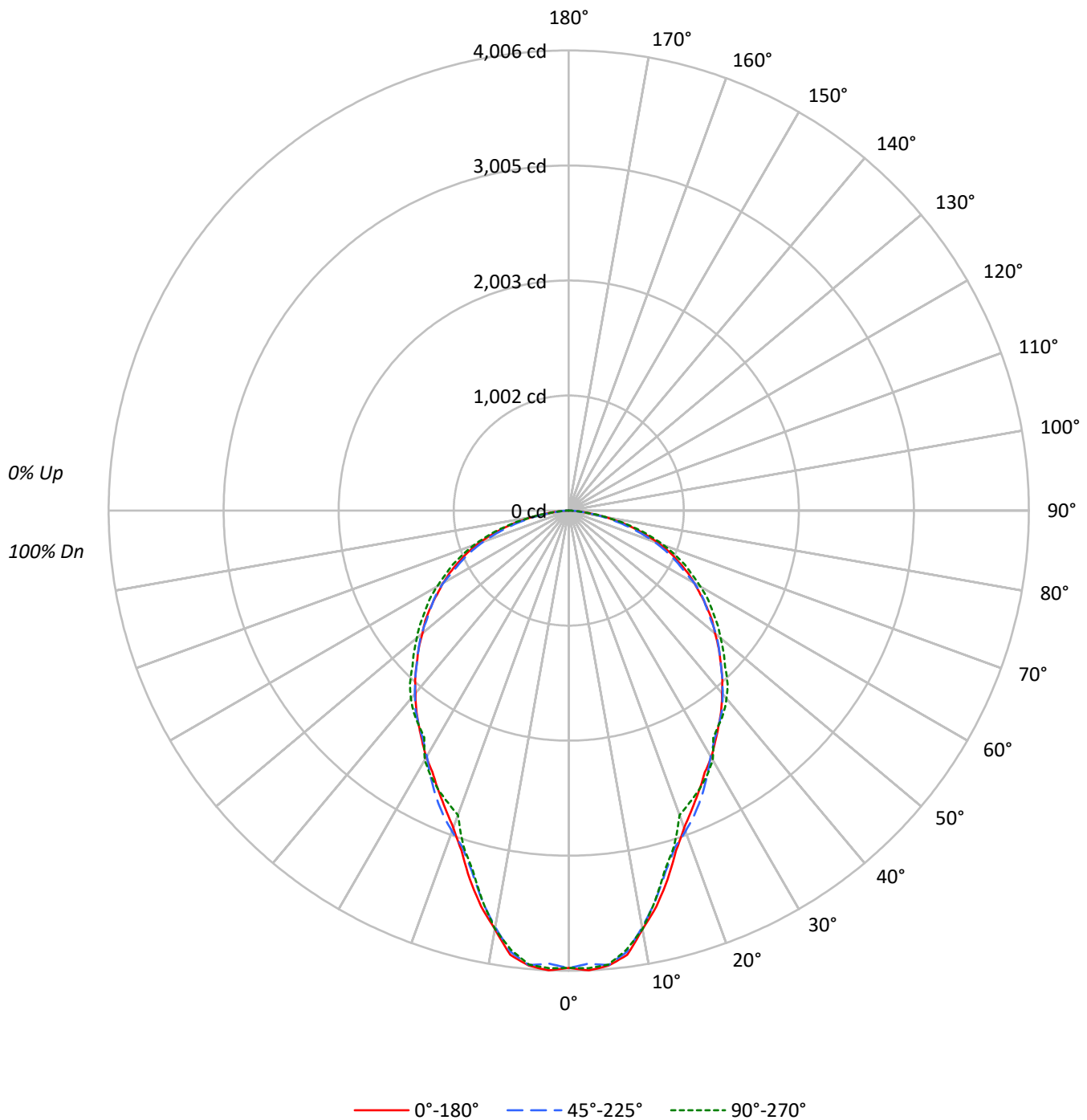
Lumens per Lamp: N/A
Luminaire Lumens: 8514.6 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10714	10714	10714
5°	10743	10727	10716
10°	10110	10064	10104
15°	9263	9061	9009
20°	8413	8508	8075
25°	7979	8139	7967
30°	7707	7675	7791
35°	7481	7481	7481
40°	7295	7324	7505
45°	7115	7107	7328
50°	6960	7012	7229
55°	6887	6858	7168
60°	6797	6786	7131
65°	6710	6499	7093
70°	6581	6206	6906
75°	6092	5510	6393
80°	4940	4493	5069
85°	3131	2813	2748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.8	4.3
10°-20°	924.5	10.9
20°-30°	1248.5	14.7
30°-40°	1429.7	16.8
40°-50°	1464.5	17.2
50°-60°	1328.8	15.6
60°-70°	1037.1	12.2
70°-80°	588.2	6.9
80°-90°	123.5	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°	2542.8	29.9
0°-40°	3972.5	46.7
0°-60°	6765.8	79.5
0°-90°	8514.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8514.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3981	3981	3981	3981	3981	
5°	3977	3932	3971	3979	3967	371
15°	3325	3335	3253	3269	3234	929
25°	2687	2723	2741	2675	2683	1240
35°	2277	2282	2277	2280	2277	1427
45°	1870	1884	1868	1944	1926	1445
55°	1468	1466	1462	1514	1528	1312
65°	1054	1031	1021	1068	1114	1044
75°	586	542	530	561	615	613
85°	101	91	91	85	89	134
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3981.4	3981.4	3981.4	3981.4	3981.4
2.5°	4006.2	3975.1	3948.2	3991.7	3987.6
5°	3977.2	3931.7	3971.0	3979.3	3966.9
7.5°	3900.6	3871.6	3873.7	3857.1	3855.1
10°	3699.8	3716.3	3683.2	3712.2	3697.7
12.5°	3527.9	3538.3	3480.3	3492.7	3476.2
15°	3325.0	3335.4	3252.6	3269.1	3233.9
17.5°	3103.5	3140.8	3072.5	3093.2	3055.9
20°	2937.9	2968.9	2971.0	2937.9	2819.9
22.5°	2807.4	2838.5	2863.3	2764.0	2751.5
25°	2687.4	2722.6	2741.2	2674.9	2683.2
27.5°	2567.3	2606.6	2606.6	2621.1	2602.5
30°	2480.3	2496.9	2470.0	2523.8	2507.2
32.5°	2376.8	2383.0	2360.2	2399.6	2341.6
35°	2277.4	2281.6	2277.4	2279.5	2277.4
37.5°	2182.2	2171.8	2190.5	2178.0	2217.4
40°	2076.6	2076.6	2084.9	2105.6	2136.6
42.5°	1979.3	1987.6	1977.2	2035.2	2047.6
45°	1869.6	1884.1	1867.5	1944.1	1925.5
47.5°	1770.2	1776.4	1772.3	1824.0	1828.2
50°	1662.5	1670.8	1674.9	1720.5	1726.7
52.5°	1573.5	1571.4	1556.9	1623.2	1633.5
55°	1467.9	1465.8	1461.7	1513.5	1527.9
57.5°	1360.2	1362.3	1372.7	1401.7	1436.8
60°	1262.9	1252.6	1260.9	1296.1	1325.0
62.5°	1163.6	1144.9	1126.3	1184.3	1211.2
65°	1053.8	1031.1	1020.7	1068.3	1113.9
67.5°	952.4	915.1	908.9	942.0	995.9
70°	836.4	790.9	788.8	813.7	877.8
72.5°	708.1	668.7	658.4	691.5	749.5
75°	585.9	542.4	530.0	561.1	614.9
77.5°	453.4	418.2	409.9	426.5	470.0
80°	318.8	298.1	289.9	296.1	327.1
82.5°	200.8	186.3	182.2	180.1	196.7
85°	101.4	91.1	91.1	84.9	89.0
87.5°	31.1	29.0	26.9	20.7	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)