

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: P485033

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-35-120-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: P485033
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-12-4-INS-89BC-LD4-2LO-35-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

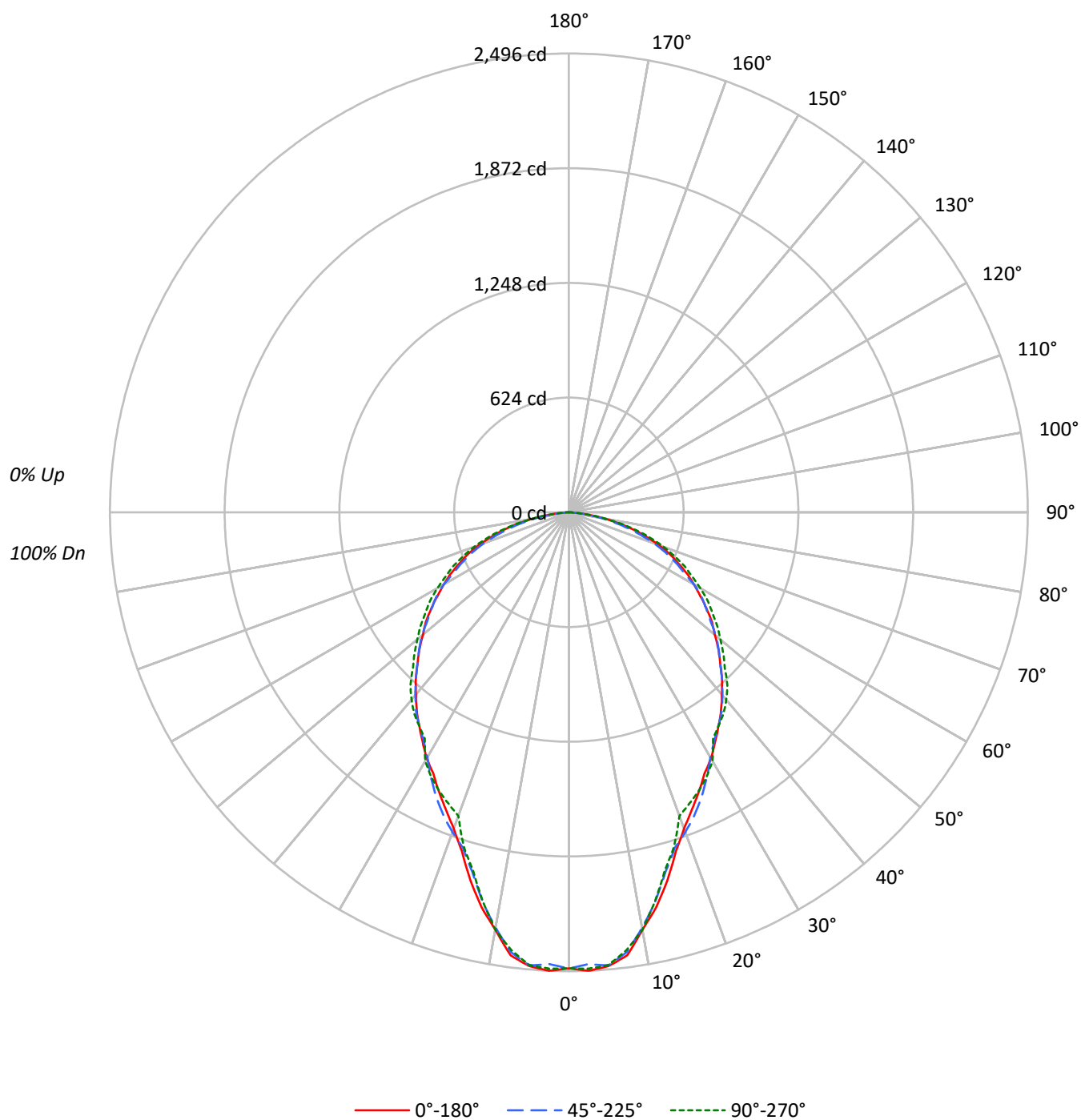
Lumens per Lamp: N/A
Luminaire Lumens: 5304.6 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6675	6675	6675
5°	6693	6683	6676
10°	6298	6270	6295
15°	5771	5645	5613
20°	5241	5300	5031
25°	4971	5071	4963
30°	4801	4781	4854
35°	4661	4661	4661
40°	4545	4563	4676
45°	4432	4427	4565
50°	4336	4369	4503
55°	4290	4272	4466
60°	4235	4228	4443
65°	4180	4049	4418
70°	4100	3866	4303
75°	3795	3433	3983
80°	3078	2799	3158
85°	1951	1754	1714



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.4	4.3
10°-20°	576.0	10.9
20°-30°	777.8	14.7
30°-40°	890.7	16.8
40°-50°	912.4	17.2
50°-60°	827.9	15.6
60°-70°	646.1	12.2
70°-80°	366.5	6.9
80°-90°	76.9	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°	1584.1	29.9
0°-40°	2474.8	46.7
0°-60°	4215.1	79.5
0°-90°	5304.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5304.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2480	2480	2480	2480	2480	
5°	2478	2449	2474	2479	2471	231
15°	2072	2078	2026	2037	2015	579
25°	1674	1696	1708	1666	1672	773
35°	1419	1421	1419	1420	1419	889
45°	1165	1174	1163	1211	1200	901
55°	914	913	911	943	952	817
65°	656	642	636	666	694	651
75°	365	338	330	350	383	382
85°	63	57	57	53	56	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2480.4	2480.4	2480.4	2480.4	2480.4
2.5°	2495.9	2476.5	2459.7	2486.8	2484.3
5°	2477.8	2449.4	2473.9	2479.1	2471.4
7.5°	2430.1	2412.0	2413.3	2403.0	2401.7
10°	2305.0	2315.3	2294.6	2312.7	2303.7
12.5°	2197.9	2204.4	2168.2	2176.0	2165.7
15°	2071.5	2078.0	2026.4	2036.7	2014.8
17.5°	1933.5	1956.7	1914.1	1927.0	1903.8
20°	1830.3	1849.6	1850.9	1830.3	1756.8
22.5°	1749.0	1768.4	1783.9	1722.0	1714.2
25°	1674.2	1696.2	1707.8	1666.5	1671.6
27.5°	1599.4	1623.9	1623.9	1633.0	1621.3
30°	1545.2	1555.6	1538.8	1572.3	1562.0
32.5°	1480.8	1484.6	1470.4	1494.9	1458.8
35°	1418.8	1421.4	1418.8	1420.1	1418.8
37.5°	1359.5	1353.1	1364.7	1356.9	1381.4
40°	1293.7	1293.7	1298.9	1311.8	1331.1
42.5°	1233.1	1238.3	1231.8	1267.9	1275.7
45°	1164.7	1173.8	1163.4	1211.2	1199.6
47.5°	1102.8	1106.7	1104.1	1136.4	1138.9
50°	1035.8	1040.9	1043.5	1071.9	1075.7
52.5°	980.3	979.0	970.0	1011.2	1017.7
55°	914.5	913.2	910.6	942.9	951.9
57.5°	847.4	848.7	855.2	873.2	895.2
60°	786.8	780.4	785.5	807.4	825.5
62.5°	724.9	713.3	701.7	737.8	754.6
65°	656.5	642.3	635.9	665.6	693.9
67.5°	593.3	570.1	566.2	586.9	620.4
70°	521.1	492.7	491.4	506.9	546.9
72.5°	441.1	416.6	410.2	430.8	466.9
75°	365.0	337.9	330.2	349.6	383.1
77.5°	282.5	260.6	255.4	265.7	292.8
80°	198.6	185.7	180.6	184.4	203.8
82.5°	125.1	116.1	113.5	112.2	122.5
85°	63.2	56.8	56.8	52.9	55.5
87.5°	19.3	18.1	16.8	12.9	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)