

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: P486997

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-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: P486997
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-24-4-INS-89BC-LD4-3HI-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

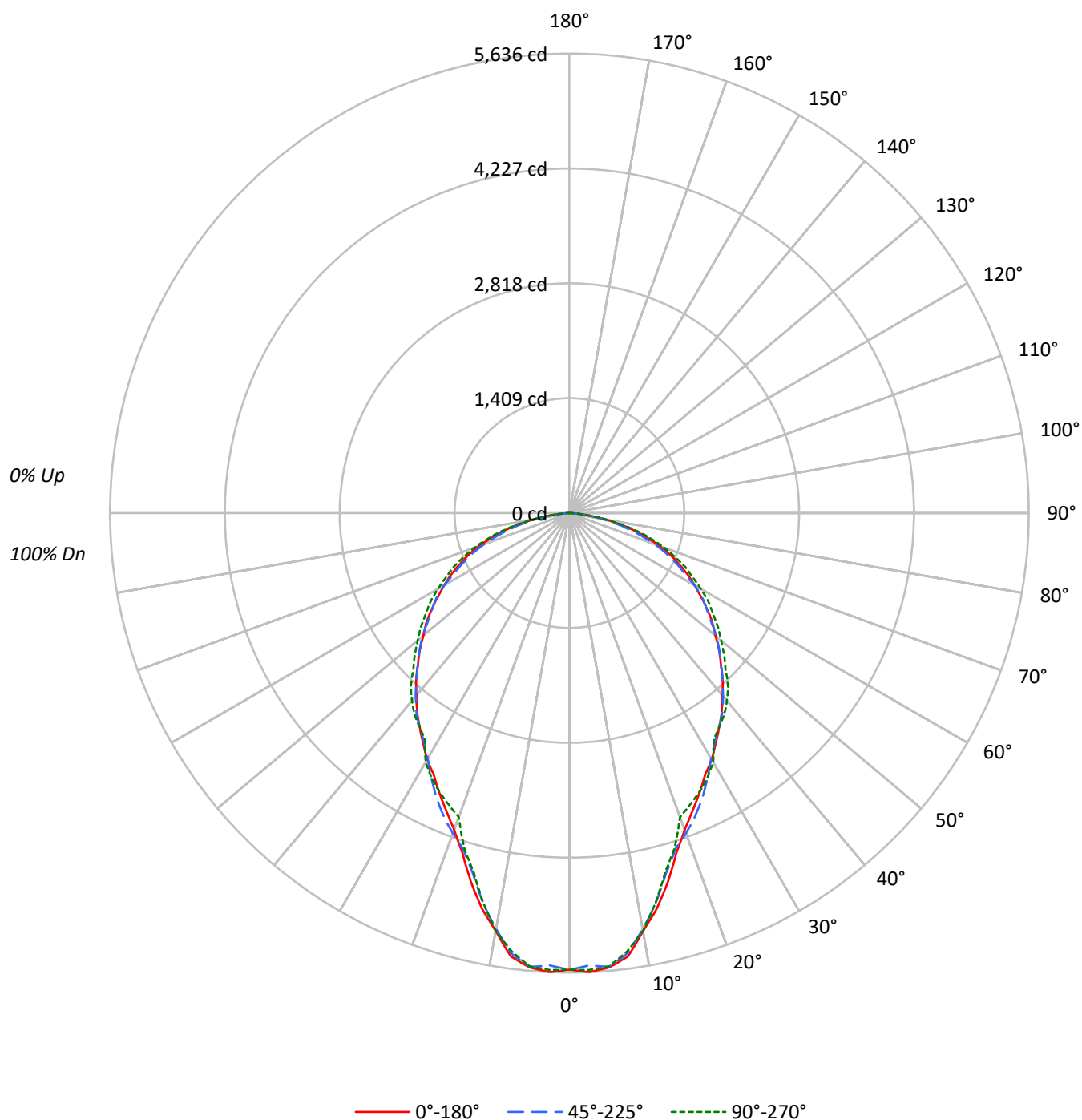
Lumens per Lamp: N/A
Luminaire Lumens: 11977.5 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	7536	7536	7536
5°	7556	7545	7537
10°	7111	7079	7107
15°	6515	6373	6337
20°	5917	5984	5680
25°	5612	5725	5604
30°	5421	5398	5480
35°	5262	5262	5262
40°	5131	5151	5279
45°	5004	4999	5154
50°	4895	4932	5084
55°	4844	4823	5042
60°	4781	4773	5016
65°	4720	4571	4989
70°	4629	4365	4858
75°	4285	3876	4497
80°	3475	3159	3566
85°	2203	1978	1933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	520.2	4.3
10°-20°	1300.5	10.9
20°-30°	1756.3	14.7
30°-40°	2011.2	16.8
40°-50°	2060.1	17.2
50°-60°	1869.3	15.6
60°-70°	1458.9	12.2
70°-80°	827.5	6.9
80°-90°	173.7	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°	3576.9	29.9
0°-40°	5588.1	46.7
0°-60°	9517.4	79.5
0°-90°	11977.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11977.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5601	5601	5601	5601	5601	
5°	5595	5531	5586	5598	5580	523
15°	4677	4692	4575	4599	4549	1307
25°	3780	3830	3856	3763	3774	1744
35°	3204	3210	3204	3207	3204	2007
45°	2630	2650	2627	2735	2708	2033
55°	2065	2062	2056	2129	2149	1845
65°	1482	1450	1436	1503	1567	1469
75°	824	763	746	789	865	862
85°	143	128	128	119	125	188
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5600.6	5600.6	5600.6	5600.6	5600.6
2.5°	5635.5	5591.8	5554.0	5615.1	5609.3
5°	5594.8	5530.7	5586.0	5597.7	5580.2
7.5°	5487.0	5446.2	5449.1	5425.8	5422.9
10°	5204.5	5227.8	5181.2	5222.0	5201.6
12.5°	4962.8	4977.3	4895.8	4913.2	4890.0
15°	4677.3	4691.9	4575.4	4598.7	4549.2
17.5°	4365.7	4418.1	4322.0	4351.2	4298.7
20°	4132.7	4176.4	4179.3	4132.7	3966.7
22.5°	3949.2	3992.9	4027.9	3888.1	3870.6
25°	3780.3	3829.8	3856.0	3762.8	3774.5
27.5°	3611.4	3666.7	3666.7	3687.1	3660.9
30°	3489.1	3512.4	3474.5	3550.2	3526.9
32.5°	3343.5	3352.2	3320.2	3375.5	3293.9
35°	3203.7	3209.5	3203.7	3206.6	3203.7
37.5°	3069.7	3055.1	3081.3	3063.9	3119.2
40°	2921.2	2921.2	2932.8	2961.9	3005.6
42.5°	2784.3	2795.9	2781.4	2862.9	2880.4
45°	2629.9	2650.3	2627.0	2734.8	2708.5
47.5°	2490.1	2498.9	2493.0	2565.8	2571.7
50°	2338.7	2350.3	2356.1	2420.2	2429.0
52.5°	2213.4	2210.5	2190.1	2283.3	2297.9
55°	2064.9	2062.0	2056.2	2129.0	2149.4
57.5°	1913.5	1916.4	1930.9	1971.7	2021.2
60°	1776.6	1762.0	1773.7	1823.2	1863.9
62.5°	1636.8	1610.6	1584.4	1665.9	1703.8
65°	1482.4	1450.4	1435.8	1502.8	1566.9
67.5°	1339.7	1287.3	1278.6	1325.2	1400.9
70°	1176.6	1112.5	1109.6	1144.6	1234.9
72.5°	996.0	940.7	926.1	972.7	1054.3
75°	824.2	763.1	745.6	789.3	865.0
77.5°	637.8	588.3	576.7	600.0	661.1
80°	448.5	419.4	407.7	416.5	460.2
82.5°	282.5	262.1	256.3	253.4	276.7
85°	142.7	128.1	128.1	119.4	125.2
87.5°	43.7	40.8	37.9	29.1	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)