

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: P485004

Luminaire Tested: **ORLG-12-4-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: P485004
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-LD4-1STD-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

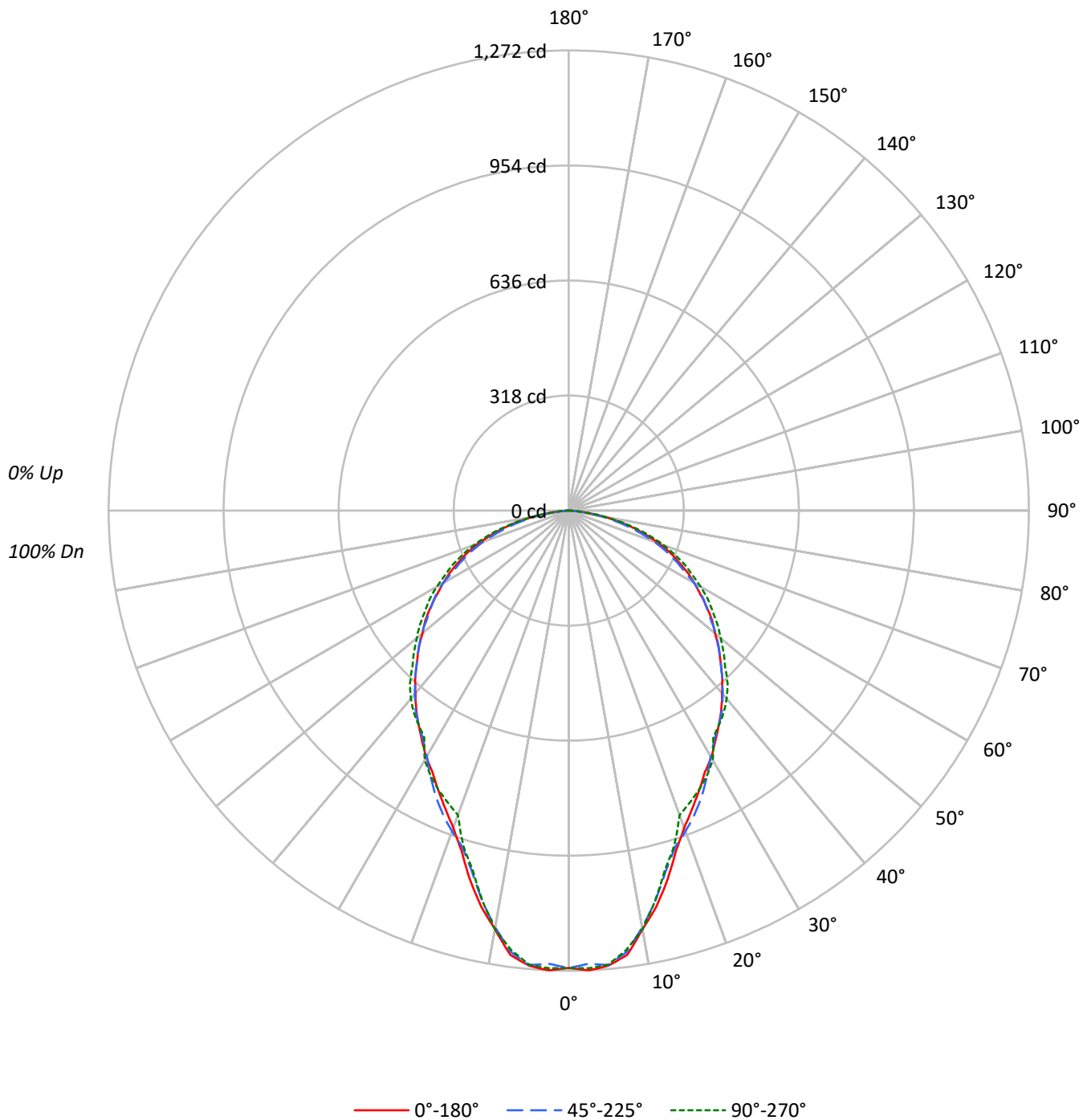
Lumens per Lamp: N/A
Luminaire Lumens: 2703.7 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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			
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°	3402	3402	3402
5°	3411	3406	3403
10°	3210	3196	3208
15°	2941	2877	2861
20°	2672	2702	2564
25°	2534	2584	2530
30°	2447	2437	2474
35°	2376	2376	2376
40°	2316	2325	2383
45°	2259	2257	2327
50°	2210	2227	2295
55°	2187	2177	2276
60°	2158	2155	2265
65°	2131	2064	2252
70°	2090	1971	2193
75°	1935	1750	2031
80°	1568	1426	1610
85°	994	892	874



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.4	4.3
10°-20°	293.6	10.9
20°-30°	396.4	14.7
30°-40°	454.0	16.8
40°-50°	465.0	17.2
50°-60°	422.0	15.6
60°-70°	329.3	12.2
70°-80°	186.8	6.9
80°-90°	39.2	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°	807.4	29.9
0°-40°	1261.4	46.7
0°-60°	2148.4	79.5
0°-90°	2703.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2703.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1263	1248	1261	1264	1260	118
15°	1056	1059	1033	1038	1027	295
25°	853	864	870	849	852	394
35°	723	724	723	724	723	453
45°	594	598	593	617	611	459
55°	466	466	464	481	485	417
65°	335	327	324	339	354	332
75°	186	172	168	178	195	195
85°	32	29	29	27	28	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1264.2	1264.2	1264.2	1264.2	1264.2
2.5°	1272.1	1262.3	1253.7	1267.5	1266.2
5°	1262.9	1248.4	1260.9	1263.6	1259.6
7.5°	1238.6	1229.4	1230.0	1224.8	1224.1
10°	1174.8	1180.1	1169.6	1178.8	1174.2
12.5°	1120.3	1123.5	1105.1	1109.1	1103.8
15°	1055.8	1059.1	1032.8	1038.1	1026.9
17.5°	985.5	997.3	975.6	982.2	970.4
20°	932.9	942.7	943.4	932.9	895.4
22.5°	891.5	901.3	909.2	877.7	873.7
25°	853.3	864.5	870.4	849.4	852.0
27.5°	815.2	827.7	827.7	832.3	826.4
30°	787.6	792.9	784.3	801.4	796.1
32.5°	754.7	756.7	749.5	762.0	743.5
35°	723.2	724.5	723.2	723.8	723.2
37.5°	692.9	689.6	695.6	691.6	704.1
40°	659.4	659.4	662.0	668.6	678.5
42.5°	628.5	631.1	627.8	646.2	650.2
45°	593.7	598.3	593.0	617.3	611.4
47.5°	562.1	564.1	562.8	579.2	580.5
50°	527.9	530.5	531.9	546.3	548.3
52.5°	499.6	499.0	494.4	515.4	518.7
55°	466.1	465.5	464.1	480.6	485.2
57.5°	431.9	432.6	435.9	445.1	456.3
60°	401.0	397.7	400.4	411.5	420.8
62.5°	369.5	363.6	357.6	376.0	384.6
65°	334.6	327.4	324.1	339.2	353.7
67.5°	302.4	290.6	288.6	299.1	316.2
70°	265.6	251.1	250.5	258.4	278.7
72.5°	224.8	212.3	209.1	219.6	238.0
75°	186.1	172.2	168.3	178.2	195.3
77.5°	144.0	132.8	130.2	135.4	149.2
80°	101.2	94.7	92.0	94.0	103.9
82.5°	63.8	59.2	57.9	57.2	62.5
85°	32.2	28.9	28.9	27.0	28.3
87.5°	9.9	9.2	8.5	6.6	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)