

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: P484997

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1LO-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: P484997
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-LD4-1LO-35-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

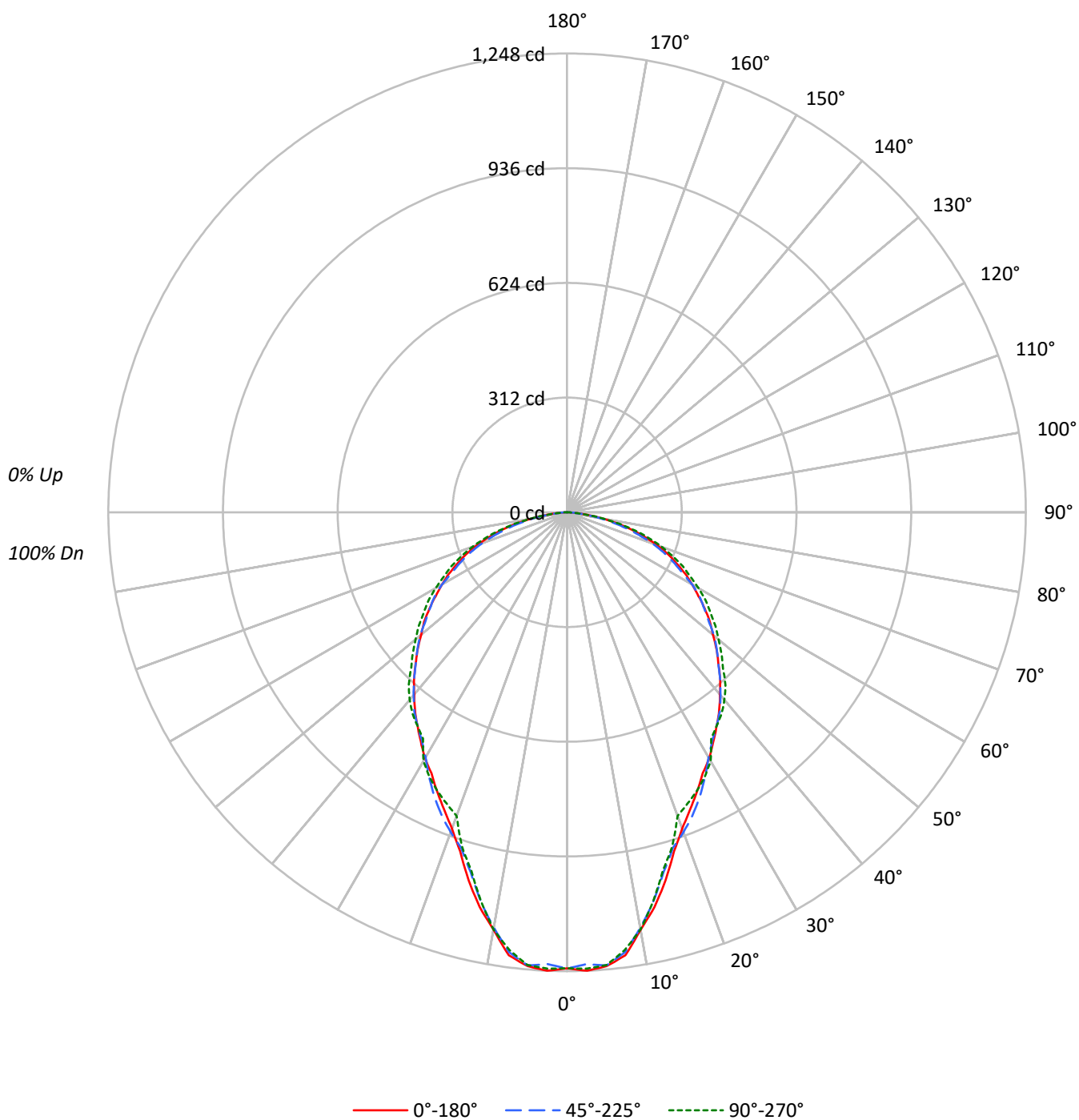
Lumens per Lamp: N/A
Luminaire Lumens: 2652.3 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	3337	3337	3337
5°	3347	3341	3338
10°	3149	3135	3147
15°	2886	2823	2807
20°	2621	2650	2515
25°	2485	2535	2482
30°	2401	2391	2427
35°	2330	2330	2330
40°	2272	2281	2338
45°	2216	2214	2283
50°	2168	2184	2252
55°	2145	2136	2233
60°	2117	2114	2222
65°	2090	2024	2209
70°	2050	1933	2151
75°	1897	1717	1991
80°	1539	1399	1579
85°	976	877	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.2	4.3
10°-20°	288.0	10.9
20°-30°	388.9	14.7
30°-40°	445.4	16.8
40°-50°	456.2	17.2
50°-60°	413.9	15.6
60°-70°	323.1	12.2
70°-80°	183.2	6.9
80°-90°	38.5	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°	792.1	29.9
0°-40°	1237.4	46.7
0°-60°	2107.6	79.5
0°-90°	2652.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2652.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1240	1240	1240	1240	1240	
5°	1239	1225	1237	1240	1236	116
15°	1036	1039	1013	1018	1007	289
25°	837	848	854	833	836	386
35°	709	711	709	710	709	444
45°	582	587	582	606	600	450
55°	457	457	455	471	476	409
65°	328	321	318	333	347	325
75°	182	169	165	175	192	191
85°	32	28	28	26	28	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1240.2	1240.2	1240.2	1240.2	1240.2
2.5°	1247.9	1238.3	1229.9	1243.4	1242.1
5°	1238.9	1224.7	1237.0	1239.5	1235.7
7.5°	1215.0	1206.0	1206.7	1201.5	1200.9
10°	1152.5	1157.6	1147.3	1156.4	1151.8
12.5°	1099.0	1102.2	1084.1	1088.0	1082.8
15°	1035.8	1039.0	1013.2	1018.3	1007.4
17.5°	966.7	978.4	957.1	963.5	951.9
20°	915.2	924.8	925.5	915.2	878.4
22.5°	874.5	884.2	891.9	861.0	857.1
25°	837.1	848.1	853.9	833.2	835.8
27.5°	799.7	812.0	812.0	816.5	810.7
30°	772.6	777.8	769.4	786.2	781.0
32.5°	740.4	742.3	735.2	747.5	729.4
35°	709.4	710.7	709.4	710.1	709.4
37.5°	679.8	676.5	682.3	678.5	690.7
40°	646.9	646.9	649.4	655.9	665.6
42.5°	616.5	619.1	615.9	634.0	637.8
45°	582.4	586.9	581.7	605.6	599.8
47.5°	551.4	553.3	552.1	568.2	569.5
50°	517.9	520.5	521.7	535.9	537.9
52.5°	490.1	489.5	485.0	505.6	508.8
55°	457.3	456.6	455.3	471.4	476.0
57.5°	423.7	424.4	427.6	436.6	447.6
60°	393.4	390.2	392.8	403.7	412.8
62.5°	362.4	356.6	350.8	368.9	377.3
65°	328.3	321.2	317.9	332.8	347.0
67.5°	296.7	285.1	283.1	293.4	310.2
70°	260.6	246.4	245.7	253.5	273.4
72.5°	220.6	208.3	205.1	215.4	233.5
75°	182.5	169.0	165.1	174.8	191.5
77.5°	141.2	130.3	127.7	132.9	146.4
80°	99.3	92.9	90.3	92.2	101.9
82.5°	62.6	58.0	56.8	56.1	61.3
85°	31.6	28.4	28.4	26.4	27.7
87.5°	9.7	9.0	8.4	6.4	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)