

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: P485064

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-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: P485064
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-LD4-3LO-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

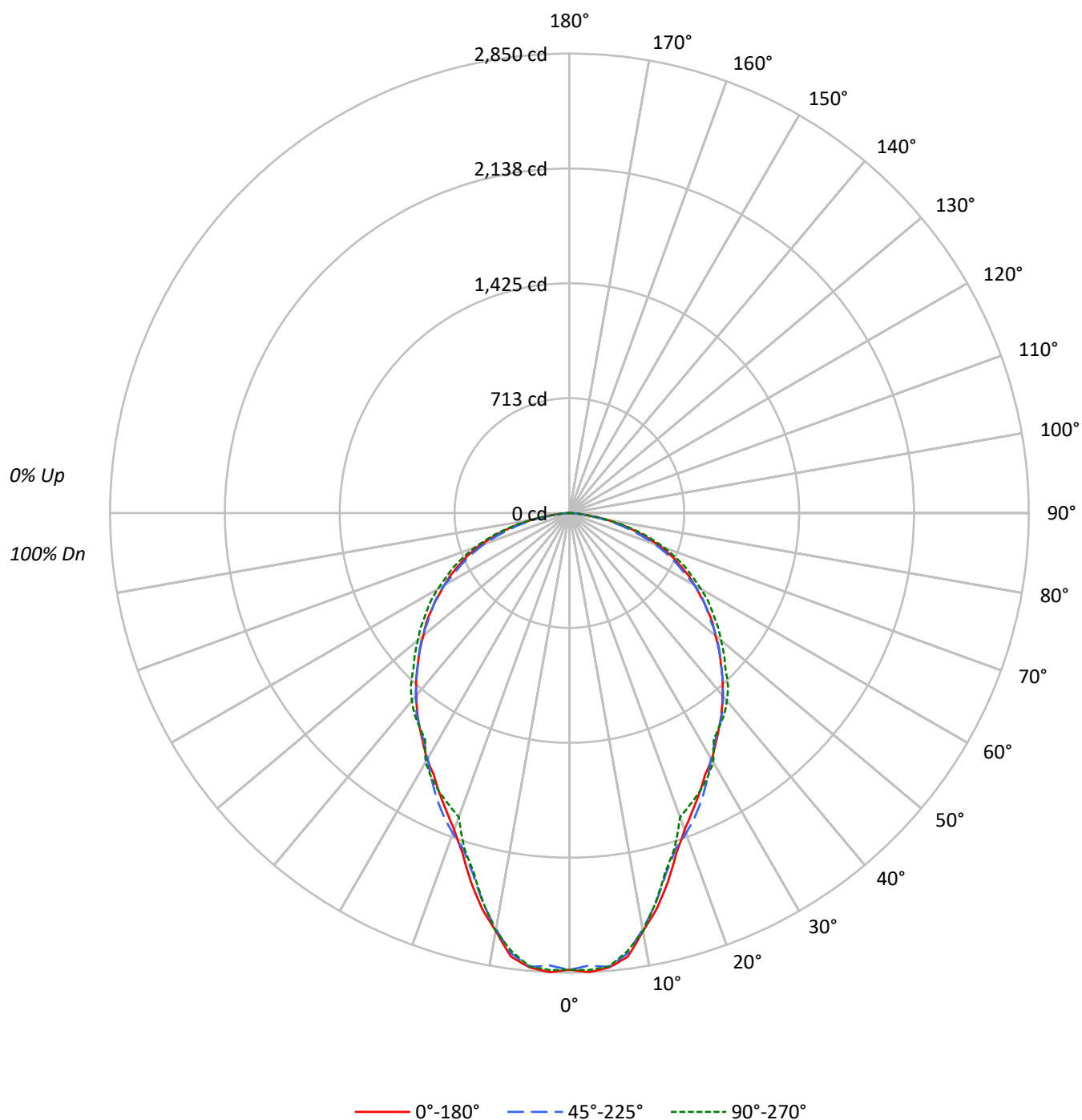
Lumens per Lamp: N/A
Luminaire Lumens: 6057.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7621	7621	7621
5°	7643	7631	7623
10°	7192	7159	7188
15°	6590	6446	6409
20°	5985	6052	5745
25°	5676	5790	5668
30°	5482	5460	5542
35°	5322	5322	5322
40°	5189	5210	5339
45°	5061	5056	5213
50°	4951	4988	5142
55°	4899	4878	5099
60°	4835	4827	5073
65°	4774	4623	5046
70°	4681	4415	4914
75°	4334	3920	4548
80°	3515	3195	3606
85°	2229	2001	1954



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.1	4.3
10°-20°	657.6	10.9
20°-30°	888.1	14.7
30°-40°	1017.1	16.8
40°-50°	1041.8	17.2
50°-60°	945.3	15.6
60°-70°	737.8	12.2
70°-80°	418.4	6.9
80°-90°	87.8	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°	1808.8	29.9
0°-40°	2825.9	46.7
0°-60°	4812.9	79.5
0°-90°	6057.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6057.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2832	2832	2832	2832	2832	
5°	2829	2797	2825	2831	2822	264
15°	2365	2373	2314	2326	2300	661
25°	1912	1937	1950	1903	1909	882
35°	1620	1623	1620	1622	1620	1015
45°	1330	1340	1328	1383	1370	1028
55°	1044	1043	1040	1077	1087	933
65°	750	734	726	760	792	743
75°	417	386	377	399	437	436
85°	72	65	65	60	63	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2832.2	2832.2	2832.2	2832.2	2832.2
2.5°	2849.9	2827.8	2808.6	2839.6	2836.6
5°	2829.3	2796.9	2824.8	2830.7	2821.9
7.5°	2774.8	2754.1	2755.6	2743.8	2742.4
10°	2631.9	2643.7	2620.1	2640.7	2630.4
12.5°	2509.7	2517.0	2475.8	2484.6	2472.8
15°	2365.3	2372.7	2313.8	2325.6	2300.5
17.5°	2207.7	2234.2	2185.6	2200.4	2173.9
20°	2089.9	2112.0	2113.5	2089.9	2006.0
22.5°	1997.1	2019.2	2036.9	1966.2	1957.4
25°	1911.7	1936.7	1950.0	1902.9	1908.8
27.5°	1826.3	1854.3	1854.3	1864.6	1851.3
30°	1764.4	1776.2	1757.1	1795.3	1783.6
32.5°	1690.8	1695.2	1679.0	1707.0	1665.7
35°	1620.1	1623.0	1620.1	1621.6	1620.1
37.5°	1552.3	1545.0	1558.2	1549.4	1577.4
40°	1477.2	1477.2	1483.1	1497.8	1519.9
42.5°	1408.0	1413.9	1406.5	1447.8	1456.6
45°	1329.9	1340.3	1328.5	1383.0	1369.7
47.5°	1259.2	1263.7	1260.7	1297.5	1300.5
50°	1182.7	1188.6	1191.5	1223.9	1228.3
52.5°	1119.3	1117.9	1107.5	1154.7	1162.0
55°	1044.2	1042.7	1039.8	1076.6	1086.9
57.5°	967.6	969.1	976.5	997.1	1022.1
60°	898.4	891.0	896.9	922.0	942.6
62.5°	827.7	814.5	801.2	842.4	861.6
65°	749.7	733.5	726.1	760.0	792.4
67.5°	677.5	651.0	646.6	670.1	708.4
70°	595.0	562.6	561.1	578.8	624.5
72.5°	503.7	475.7	468.4	491.9	533.2
75°	416.8	385.9	377.0	399.1	437.4
77.5°	322.5	297.5	291.6	303.4	334.3
80°	226.8	212.1	206.2	210.6	232.7
82.5°	142.9	132.6	129.6	128.1	139.9
85°	72.2	64.8	64.8	60.4	63.3
87.5°	22.1	20.6	19.1	14.7	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)