

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: P485070

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-40-120-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: P485070
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-40-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

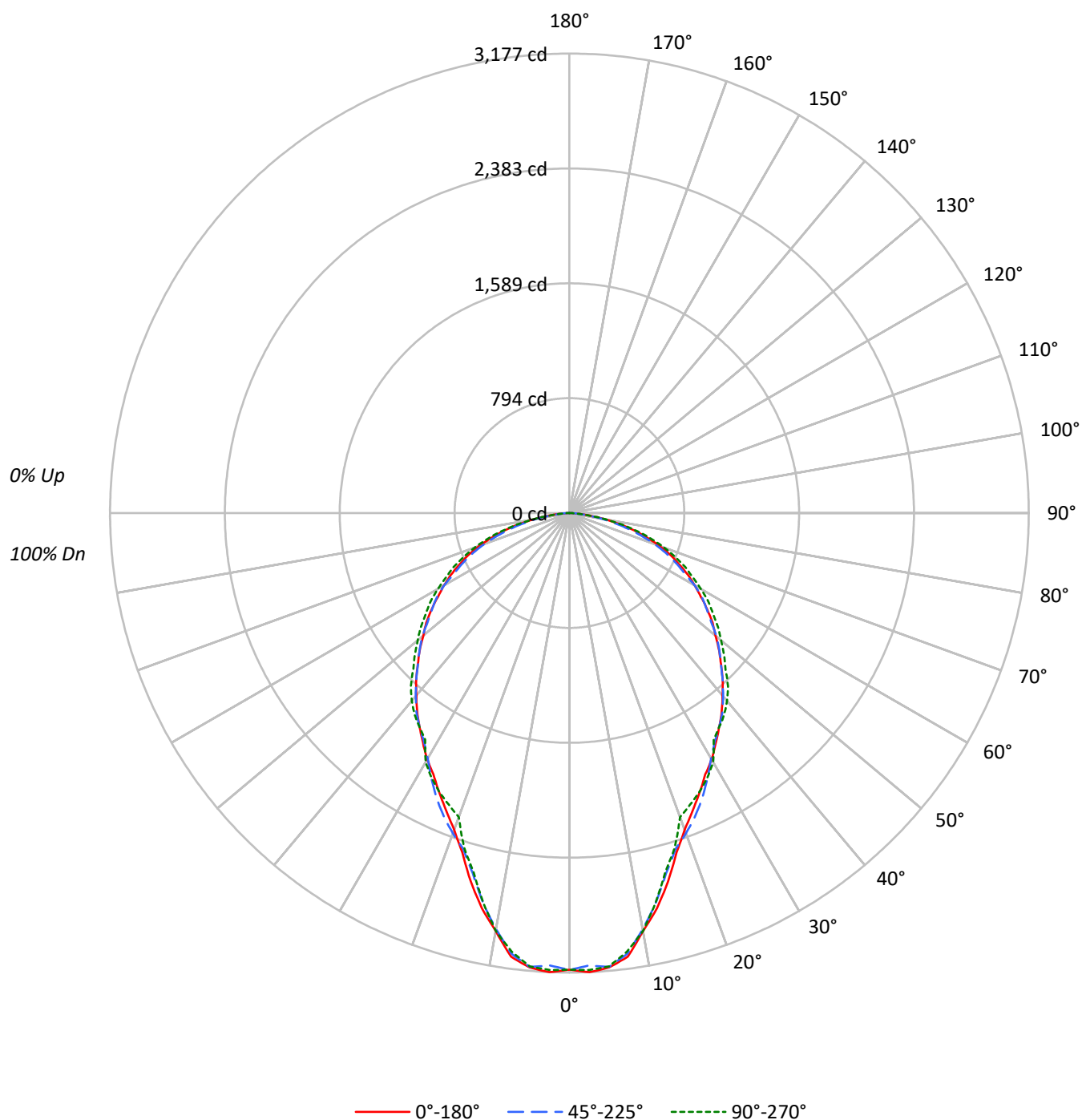
Lumens per Lamp: N/A
Luminaire Lumens: 6752.5 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8496	8496	8496
5°	8520	8507	8498
10°	8017	7982	8013
15°	7346	7186	7145
20°	6672	6747	6404
25°	6328	6455	6318
30°	6112	6087	6179
35°	5933	5933	5933
40°	5785	5808	5952
45°	5643	5636	5811
50°	5520	5561	5733
55°	5461	5438	5685
60°	5391	5381	5655
65°	5321	5154	5625
70°	5219	4922	5478
75°	4832	4370	5071
80°	3919	3563	4020
85°	2485	2229	2180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.3	4.3
10°-20°	733.2	10.9
20°-30°	990.1	14.7
30°-40°	1133.8	16.8
40°-50°	1161.4	17.2
50°-60°	1053.8	15.6
60°-70°	822.5	12.2
70°-80°	466.5	6.9
80°-90°	97.9	1.4
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°	2016.5	29.9
0°-40°	3150.4	46.7
0°-60°	5365.6	79.5
0°-90°	6752.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6752.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3157	3157	3157	3157	3157	
5°	3154	3118	3149	3156	3146	295
15°	2637	2645	2580	2593	2565	737
25°	2131	2159	2174	2121	2128	983
35°	1806	1809	1806	1808	1806	1131
45°	1483	1494	1481	1542	1527	1146
55°	1164	1162	1159	1200	1212	1040
65°	836	818	810	847	883	828
75°	465	430	420	445	488	486
85°	80	72	72	67	71	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3157.4	3157.4	3157.4	3157.4	3157.4
2.5°	3177.1	3152.5	3131.1	3165.6	3162.3
5°	3154.1	3118.0	3149.2	3155.8	3145.9
7.5°	3093.4	3070.4	3072.0	3058.9	3057.3
10°	2934.1	2947.2	2921.0	2944.0	2932.5
12.5°	2797.8	2806.0	2760.1	2769.9	2756.8
15°	2636.9	2645.1	2579.5	2592.6	2564.7
17.5°	2461.2	2490.8	2436.6	2453.0	2423.5
20°	2329.9	2354.5	2356.2	2329.9	2236.3
22.5°	2226.4	2251.1	2270.8	2192.0	2182.1
25°	2131.2	2159.1	2173.9	2121.4	2127.9
27.5°	2036.0	2067.2	2067.2	2078.7	2063.9
30°	1967.0	1980.2	1958.8	2001.5	1988.4
32.5°	1884.9	1889.9	1871.8	1903.0	1857.0
35°	1806.1	1809.4	1806.1	1807.8	1806.1
37.5°	1730.6	1722.4	1737.2	1727.3	1758.5
40°	1646.8	1646.8	1653.4	1669.8	1694.5
42.5°	1569.7	1576.2	1568.0	1614.0	1623.9
45°	1482.7	1494.1	1481.0	1541.8	1527.0
47.5°	1403.8	1408.8	1405.5	1446.5	1449.8
50°	1318.5	1325.0	1328.3	1364.4	1369.4
52.5°	1247.9	1246.2	1234.7	1287.3	1295.5
55°	1164.1	1162.5	1159.2	1200.2	1211.7
57.5°	1078.7	1080.4	1088.6	1111.6	1139.5
60°	1001.6	993.4	999.9	1027.8	1050.8
62.5°	922.8	908.0	893.2	939.2	960.5
65°	835.7	817.7	809.5	847.2	883.4
67.5°	755.3	725.7	720.8	747.1	789.8
70°	663.3	627.2	625.6	645.3	696.2
72.5°	561.5	530.3	522.1	548.4	594.4
75°	464.7	430.2	420.3	445.0	487.7
77.5°	359.6	331.7	325.1	338.2	372.7
80°	252.9	236.4	229.9	234.8	259.4
82.5°	159.3	147.8	144.5	142.8	156.0
85°	80.5	72.2	72.2	67.3	70.6
87.5°	24.6	23.0	21.3	16.4	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)