

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: P484989

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1HI-50-120-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: P484989
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-LD4-1HI-50-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

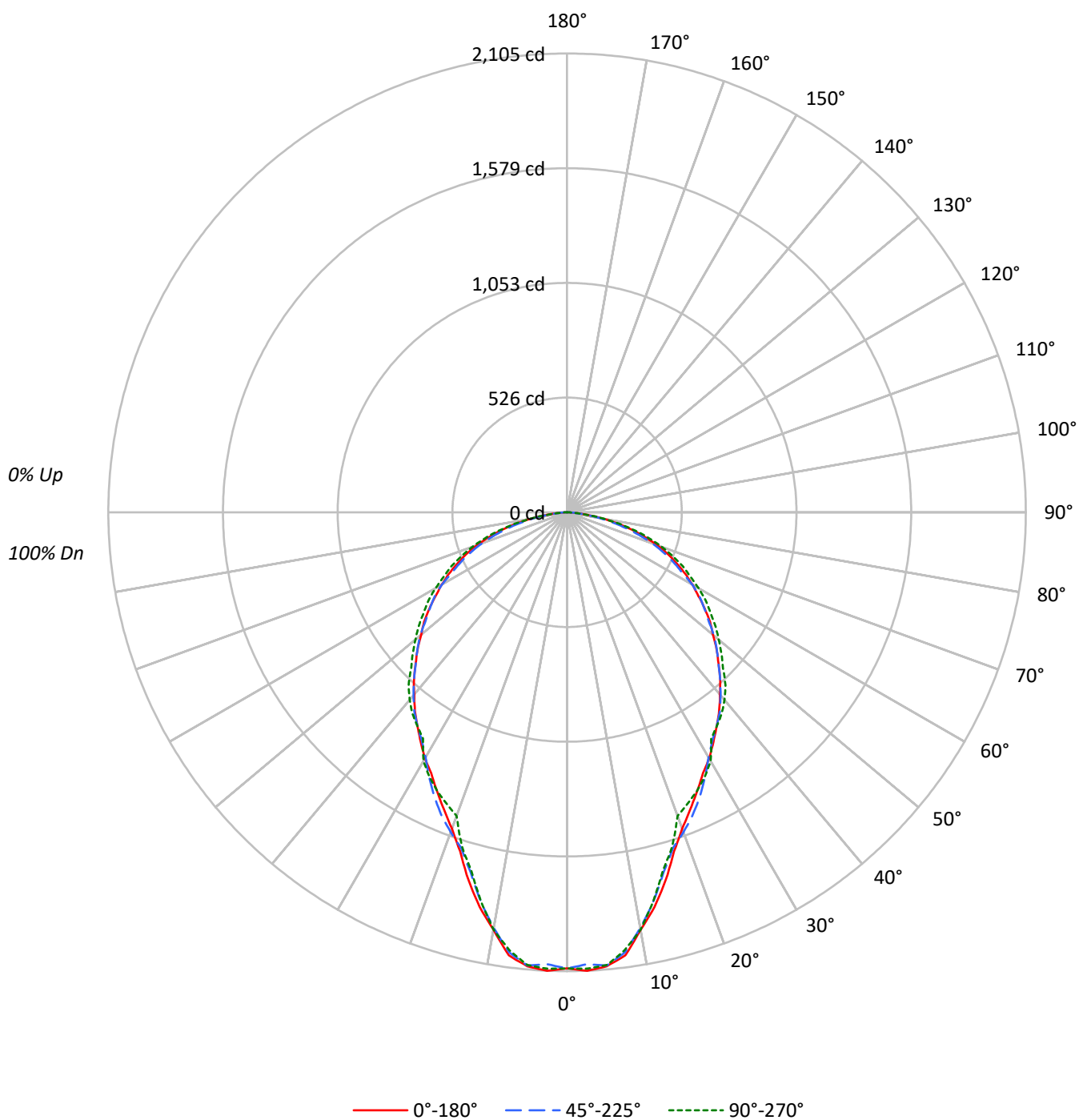
Lumens per Lamp: N/A
Luminaire Lumens: 4474.8 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	5631	5631	5631
5°	5646	5637	5632
10°	5313	5289	5310
15°	4868	4762	4735
20°	4422	4471	4244
25°	4193	4277	4187
30°	4050	4034	4094
35°	3932	3932	3932
40°	3834	3849	3945
45°	3739	3735	3851
50°	3658	3685	3799
55°	3619	3604	3767
60°	3572	3566	3748
65°	3526	3415	3727
70°	3459	3262	3629
75°	3201	2896	3360
80°	2597	2360	2664
85°	1646	1479	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.3	4.3
10°-20°	485.9	10.9
20°-30°	656.1	14.7
30°-40°	751.4	16.8
40°-50°	769.7	17.2
50°-60°	698.4	15.6
60°-70°	545.0	12.2
70°-80°	309.1	6.9
80°-90°	64.9	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°	1336.3	29.9
0°-40°	2087.7	46.7
0°-60°	3555.7	79.5
0°-90°	4474.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4474.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2092	2092	2092	2092	2092	
5°	2090	2066	2087	2091	2085	195
15°	1748	1753	1709	1718	1700	488
25°	1412	1431	1441	1406	1410	652
35°	1197	1199	1197	1198	1197	750
45°	982	990	981	1022	1012	760
55°	771	770	768	795	803	689
65°	554	542	536	561	585	549
75°	308	285	278	295	323	322
85°	53	48	48	45	47	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2092.4	2092.4	2092.4	2092.4	2092.4
2.5°	2105.4	2089.1	2075.0	2097.8	2095.6
5°	2090.2	2066.3	2086.9	2091.3	2084.8
7.5°	2049.9	2034.7	2035.8	2027.1	2026.0
10°	1944.4	1953.1	1935.7	1950.9	1943.3
12.5°	1854.1	1859.5	1829.1	1835.6	1826.9
15°	1747.5	1752.9	1709.4	1718.1	1699.6
17.5°	1631.0	1650.6	1614.7	1625.6	1606.0
20°	1544.0	1560.3	1561.4	1544.0	1482.0
22.5°	1475.4	1491.8	1504.8	1452.6	1446.1
25°	1412.3	1430.8	1440.6	1405.8	1410.2
27.5°	1349.2	1369.9	1369.9	1377.5	1367.7
30°	1303.5	1312.2	1298.1	1326.4	1317.7
32.5°	1249.1	1252.4	1240.4	1261.1	1230.6
35°	1196.9	1199.1	1196.9	1198.0	1196.9
37.5°	1146.8	1141.4	1151.2	1144.7	1165.3
40°	1091.3	1091.3	1095.7	1106.6	1122.9
42.5°	1040.2	1044.6	1039.1	1069.6	1076.1
45°	982.5	990.2	981.4	1021.7	1011.9
47.5°	930.3	933.6	931.4	958.6	960.8
50°	873.7	878.1	880.3	904.2	907.5
52.5°	826.9	825.9	818.2	853.1	858.5
55°	771.4	770.4	768.2	795.4	803.0
57.5°	714.9	716.0	721.4	736.6	755.1
60°	663.7	658.3	662.6	681.1	696.4
62.5°	611.5	601.7	591.9	622.4	636.5
65°	553.8	541.9	536.4	561.4	585.4
67.5°	500.5	480.9	477.7	495.1	523.4
70°	439.6	415.6	414.6	427.6	461.3
72.5°	372.1	351.5	346.0	363.4	393.9
75°	307.9	285.1	278.5	294.9	323.2
77.5°	238.3	219.8	215.4	224.1	247.0
80°	167.6	156.7	152.3	155.6	171.9
82.5°	105.5	97.9	95.8	94.7	103.4
85°	53.3	47.9	47.9	44.6	46.8
87.5°	16.3	15.2	14.1	10.9	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)