

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: P485806

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-20-120-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: P485806
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-24-2-INS-89BC-LD4-6HI-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

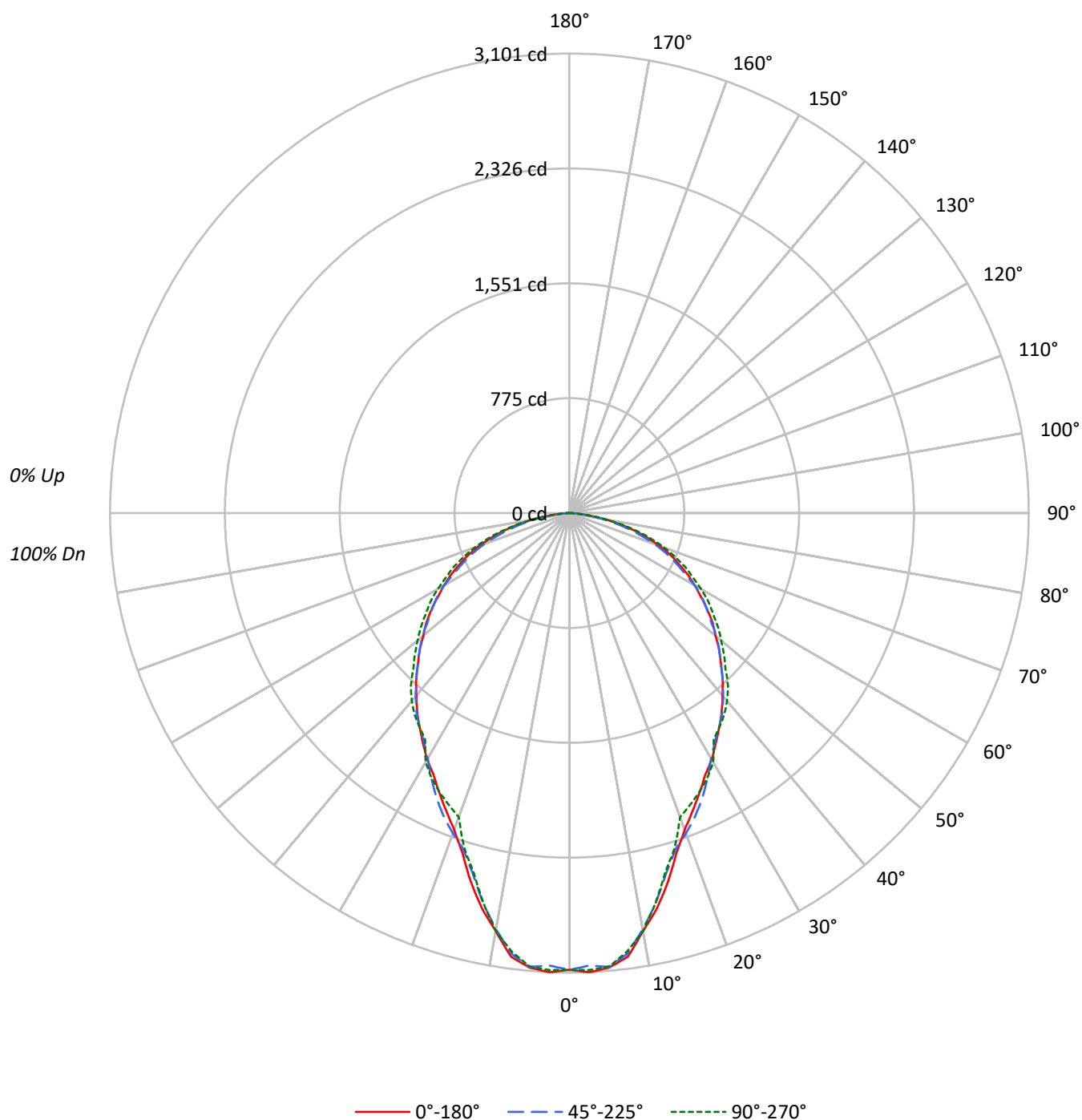
Lumens per Lamp: N/A
Luminaire Lumens: 6591.6 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	8294	8294	8294
5°	8317	8304	8296
10°	7826	7791	7822
15°	7171	7015	6975
20°	6513	6586	6251
25°	6177	6301	6168
30°	5967	5941	6031
35°	5792	5792	5792
40°	5647	5670	5811
45°	5508	5502	5673
50°	5388	5429	5596
55°	5332	5309	5550
60°	5262	5253	5521
65°	5195	5032	5491
70°	5094	4805	5347
75°	4716	4266	4949
80°	3825	3477	3924
85°	2424	2177	2127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.3	4.3
10°-20°	715.7	10.9
20°-30°	966.5	14.7
30°-40°	1106.8	16.8
40°-50°	1133.7	17.2
50°-60°	1028.7	15.6
60°-70°	802.9	12.2
70°-80°	455.4	6.9
80°-90°	95.6	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°	1968.5	29.9
0°-40°	3075.3	46.7
0°-60°	5237.7	79.5
0°-90°	6591.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6591.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3082	3082	3082	3082	3082	
5°	3079	3044	3074	3081	3071	288
15°	2574	2582	2518	2531	2504	719
25°	2080	2108	2122	2071	2077	960
35°	1763	1766	1763	1765	1763	1104
45°	1447	1458	1446	1505	1491	1119
55°	1136	1135	1132	1172	1183	1016
65°	816	798	790	827	862	809
75°	454	420	410	434	476	475
85°	78	70	70	66	69	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3082.2	3082.2	3082.2	3082.2	3082.2
2.5°	3101.4	3077.4	3056.5	3090.2	3087.0
5°	3079.0	3043.7	3074.2	3080.6	3071.0
7.5°	3019.7	2997.2	2998.8	2986.0	2984.4
10°	2864.2	2877.0	2851.4	2873.8	2862.6
12.5°	2731.2	2739.2	2694.3	2703.9	2691.1
15°	2574.1	2582.1	2518.0	2530.8	2503.6
17.5°	2402.6	2431.4	2378.6	2394.6	2365.7
20°	2274.4	2298.4	2300.0	2274.4	2183.0
22.5°	2173.4	2197.4	2216.7	2139.7	2130.1
25°	2080.4	2107.7	2122.1	2070.8	2077.2
27.5°	1987.5	2017.9	2017.9	2029.1	2014.7
30°	1920.2	1933.0	1912.1	1953.8	1941.0
32.5°	1840.0	1844.8	1827.2	1857.6	1812.8
35°	1763.1	1766.3	1763.1	1764.7	1763.1
37.5°	1689.3	1681.3	1695.8	1686.1	1716.6
40°	1607.6	1607.6	1614.0	1630.0	1654.1
42.5°	1532.3	1538.7	1530.7	1575.5	1585.2
45°	1447.3	1458.5	1445.7	1505.0	1490.6
47.5°	1370.4	1375.2	1372.0	1412.1	1415.3
50°	1287.0	1293.5	1296.7	1331.9	1336.7
52.5°	1218.1	1216.5	1205.3	1256.6	1264.6
55°	1136.4	1134.8	1131.6	1171.6	1182.9
57.5°	1053.0	1054.6	1062.7	1085.1	1112.3
60°	977.7	969.7	976.1	1003.4	1025.8
62.5°	900.8	886.3	871.9	916.8	937.6
65°	815.8	798.2	790.2	827.0	862.3
67.5°	737.3	708.4	703.6	729.3	770.9
70°	647.5	612.3	610.7	629.9	679.6
72.5°	548.2	517.7	509.7	535.3	580.2
75°	453.6	419.9	410.3	434.4	476.0
77.5°	351.0	323.8	317.4	330.2	363.8
80°	246.8	230.8	224.4	229.2	253.2
82.5°	155.5	144.3	141.0	139.4	152.3
85°	78.5	70.5	70.5	65.7	68.9
87.5°	24.0	22.4	20.8	16.0	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)