

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: P485084

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3STD-50-120-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: P485084
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-LD4-3STD-50-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

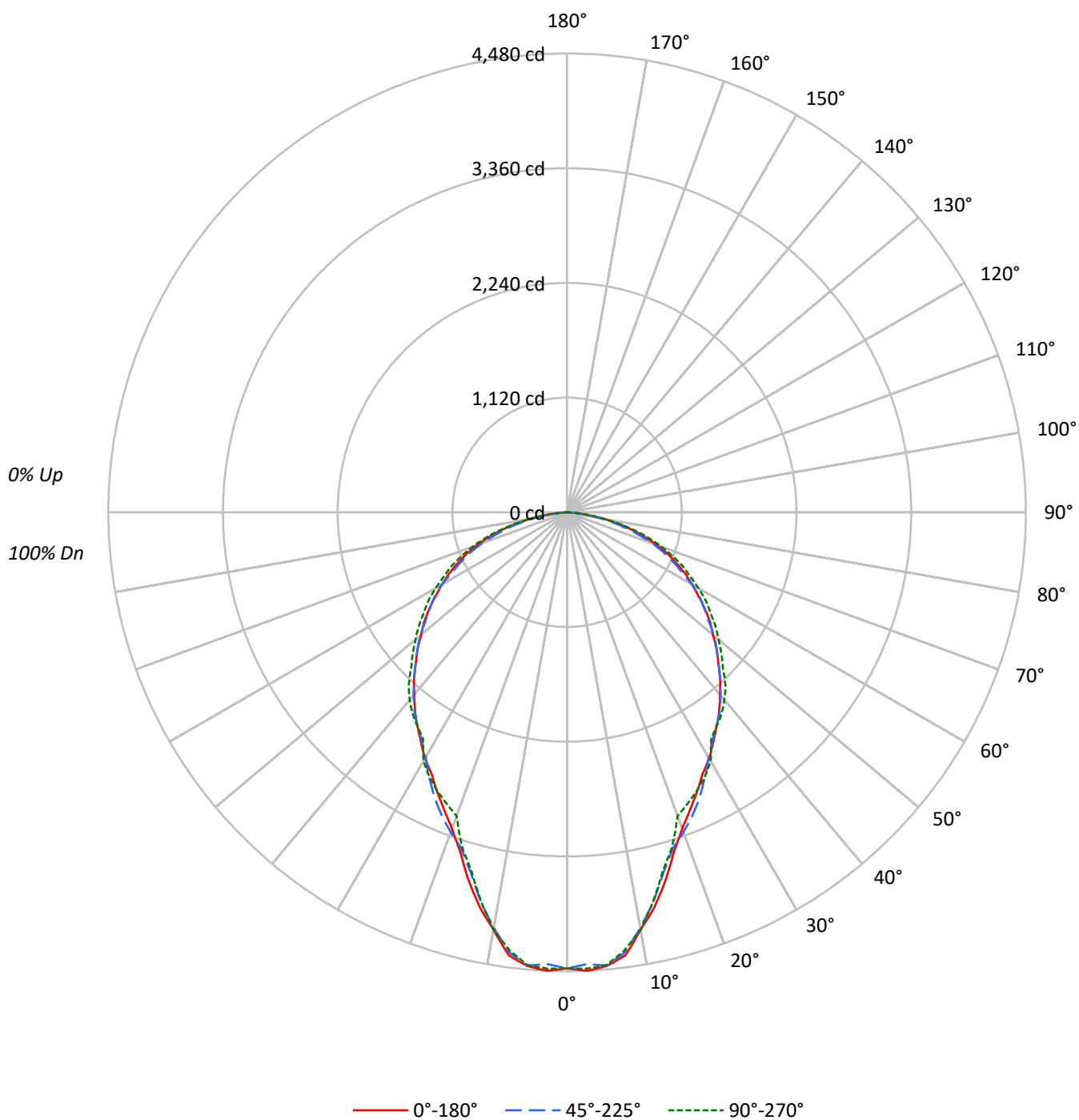
Lumens per Lamp: N/A
Luminaire Lumens: 9521.9 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11981	11981	11981
5°	12014	11996	11983
10°	11306	11255	11299
15°	10359	10133	10075
20°	9408	9515	9031
25°	8923	9102	8910
30°	8619	8583	8712
35°	8367	8367	8367
40°	8158	8190	8394
45°	7956	7948	8194
50°	7783	7842	8084
55°	7702	7669	8016
60°	7601	7589	7975
65°	7504	7268	7931
70°	7360	6940	7724
75°	6812	6162	7150
80°	5526	5022	5669
85°	3504	3146	3075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.5	4.3
10°-20°	1033.8	10.9
20°-30°	1396.2	14.7
30°-40°	1598.9	16.8
40°-50°	1637.7	17.2
50°-60°	1486.0	15.6
60°-70°	1159.8	12.2
70°-80°	657.8	6.9
80°-90°	138.1	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°	2843.6	29.9
0°-40°	4442.4	46.7
0°-60°	7566.2	79.5
0°-90°	9521.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9521.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4452	4452	4452	4452	4452	
5°	4448	4397	4441	4450	4436	415
15°	3718	3730	3637	3656	3616	1039
25°	3005	3045	3066	2991	3001	1387
35°	2547	2552	2547	2549	2547	1595
45°	2091	2107	2088	2174	2153	1616
55°	1642	1639	1635	1692	1709	1467
65°	1178	1153	1142	1195	1246	1168
75°	655	607	593	628	688	685
85°	114	102	102	95	100	150
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4452.4	4452.4	4452.4	4452.4	4452.4
2.5°	4480.1	4445.4	4415.3	4463.9	4459.3
5°	4447.7	4396.8	4440.8	4450.0	4436.2
7.5°	4362.1	4329.7	4332.0	4313.4	4311.1
10°	4137.5	4156.0	4119.0	4151.4	4135.2
12.5°	3945.3	3956.9	3892.1	3905.9	3887.4
15°	3718.4	3730.0	3637.4	3655.9	3616.5
17.5°	3470.7	3512.3	3435.9	3459.1	3417.4
20°	3285.4	3320.2	3322.5	3285.4	3153.5
22.5°	3139.6	3174.3	3202.1	3091.0	3077.1
25°	3005.3	3044.6	3065.5	2991.4	3000.7
27.5°	2871.0	2915.0	2915.0	2931.2	2910.4
30°	2773.8	2792.3	2762.2	2822.4	2803.9
32.5°	2658.0	2664.9	2639.5	2683.5	2618.6
35°	2546.9	2551.5	2546.9	2549.2	2546.9
37.5°	2440.3	2428.8	2449.6	2435.7	2479.7
40°	2322.3	2322.3	2331.5	2354.7	2389.4
42.5°	2213.4	2222.7	2211.1	2276.0	2289.9
45°	2090.7	2106.9	2088.4	2174.1	2153.2
47.5°	1979.6	1986.5	1981.9	2039.8	2044.4
50°	1859.2	1868.5	1873.1	1924.0	1931.0
52.5°	1759.6	1757.3	1741.1	1815.2	1826.8
55°	1641.6	1639.2	1634.6	1692.5	1708.7
57.5°	1521.2	1523.5	1535.1	1567.5	1606.8
60°	1412.3	1400.8	1410.0	1449.4	1481.8
62.5°	1301.2	1280.4	1259.5	1324.4	1354.5
65°	1178.5	1153.0	1141.5	1194.7	1245.6
67.5°	1065.0	1023.4	1016.4	1053.5	1113.7
70°	935.4	884.5	882.1	909.9	981.7
72.5°	791.8	747.8	736.3	773.3	838.1
75°	655.2	606.6	592.7	627.5	687.7
77.5°	507.1	467.7	458.4	477.0	525.6
80°	356.6	333.4	324.1	331.1	365.8
82.5°	224.6	208.4	203.7	201.4	220.0
85°	113.5	101.9	101.9	94.9	99.6
87.5°	34.7	32.4	30.1	23.2	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)