

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: P485063

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-20-120-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: P485063
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-20-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

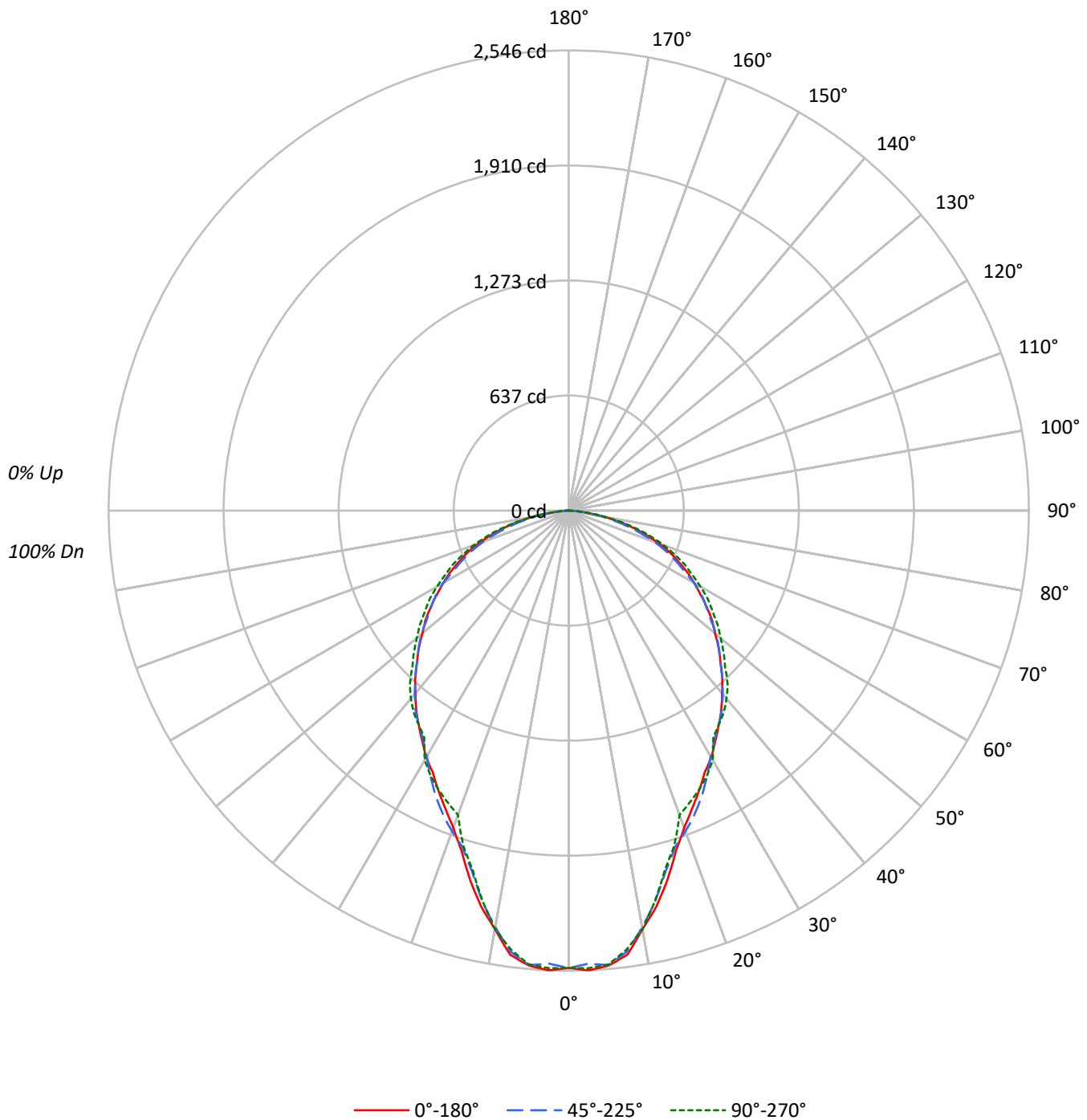
Lumens per Lamp: N/A
Luminaire Lumens: 5410.7 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-3LO-20-120-EDD

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°	6808	6808	6808
5°	6827	6816	6809
10°	6424	6395	6421
15°	5886	5758	5725
20°	5346	5407	5131
25°	5070	5172	5063
30°	4898	4877	4951
35°	4754	4754	4754
40°	4636	4654	4770
45°	4521	4516	4657
50°	4423	4456	4594
55°	4376	4358	4556
60°	4319	4312	4532
65°	4264	4130	4507
70°	4182	3944	4389
75°	3871	3502	4062
80°	3140	2854	3222
85°	1991	1788	1748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.0	4.3
10°-20°	587.5	10.9
20°-30°	793.4	14.7
30°-40°	908.5	16.8
40°-50°	930.6	17.2
50°-60°	844.4	15.6
60°-70°	659.1	12.2
70°-80°	373.8	6.9
80°-90°	78.5	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°	1615.8	29.9
0°-40°	2524.4	46.7
0°-60°	4299.4	79.5
0°-90°	5410.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5410.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2530	2530	2530	2530	2530	
5°	2527	2498	2523	2529	2521	236
15°	2113	2120	2067	2077	2055	591
25°	1708	1730	1742	1700	1705	788
35°	1447	1450	1447	1448	1447	907
45°	1188	1197	1187	1235	1224	919
55°	933	932	929	962	971	834
65°	670	655	649	679	708	664
75°	372	345	337	356	391	389
85°	64	58	58	54	57	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2530.0	2530.0	2530.0	2530.0	2530.0
2.5°	2545.8	2526.1	2508.9	2536.6	2533.9
5°	2527.4	2498.4	2523.4	2528.7	2520.8
7.5°	2478.7	2460.3	2461.6	2451.1	2449.7
10°	2351.1	2361.6	2340.5	2359.0	2349.8
12.5°	2241.9	2248.4	2211.6	2219.5	2209.0
15°	2112.9	2119.5	2066.9	2077.4	2055.0
17.5°	1972.2	1995.8	1952.4	1965.6	1941.9
20°	1866.9	1886.6	1888.0	1866.9	1791.9
22.5°	1784.0	1803.8	1819.5	1756.4	1748.5
25°	1707.7	1730.1	1741.9	1699.8	1705.1
27.5°	1631.4	1656.4	1656.4	1665.6	1653.8
30°	1576.2	1586.7	1569.6	1603.8	1593.3
32.5°	1510.4	1514.3	1499.8	1524.8	1488.0
35°	1447.2	1449.8	1447.2	1448.5	1447.2
37.5°	1386.7	1380.1	1392.0	1384.1	1409.1
40°	1319.6	1319.6	1324.9	1338.0	1357.8
42.5°	1257.8	1263.0	1256.4	1293.3	1301.2
45°	1188.0	1197.2	1186.7	1235.4	1223.6
47.5°	1124.9	1128.8	1126.2	1159.1	1161.7
50°	1056.5	1061.7	1064.4	1093.3	1097.3
52.5°	999.9	998.6	989.4	1031.5	1038.0
55°	932.8	931.5	928.9	961.7	971.0
57.5°	864.4	865.7	872.3	890.7	913.1
60°	802.5	796.0	801.2	823.6	842.0
62.5°	739.4	727.6	715.7	752.6	769.7
65°	669.7	655.2	648.6	678.9	707.8
67.5°	605.2	581.5	577.6	598.6	632.8
70°	531.5	502.6	501.3	517.1	557.8
72.5°	450.0	425.0	418.4	439.4	476.3
75°	372.3	344.7	336.8	356.5	390.7
77.5°	288.1	265.8	260.5	271.0	298.7
80°	202.6	189.5	184.2	188.1	207.9
82.5°	127.6	118.4	115.8	114.5	125.0
85°	64.5	57.9	57.9	53.9	56.6
87.5°	19.7	18.4	17.1	13.2	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)