

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: P484990

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1LO-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: P484990
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-LD4-1LO-20-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

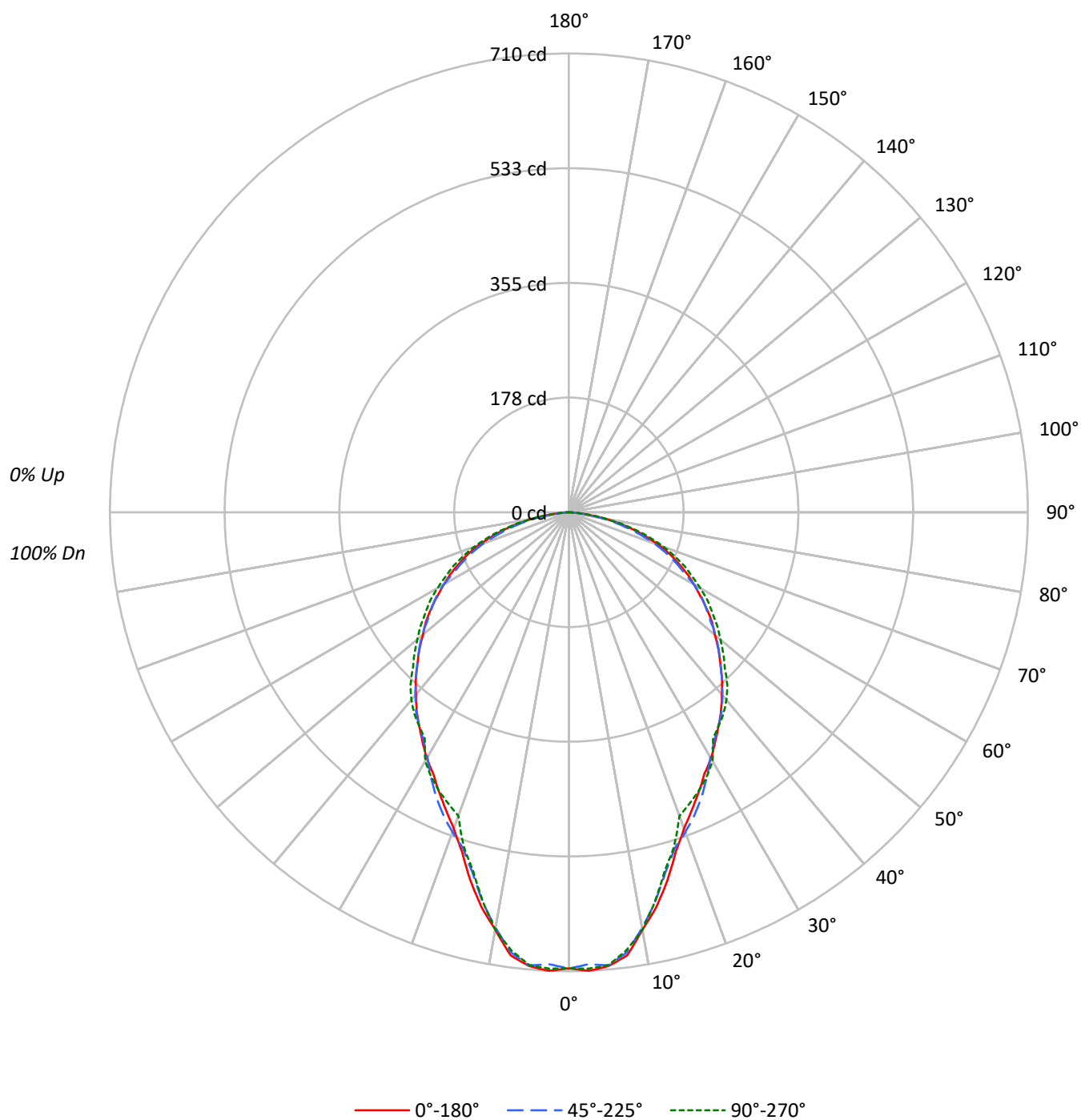
Lumens per Lamp: N/A
Luminaire Lumens: 1509.1 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	1899	1899	1899
5°	1904	1901	1899
10°	1792	1784	1791
15°	1642	1606	1597
20°	1491	1508	1431
25°	1414	1442	1412
30°	1366	1360	1381
35°	1326	1326	1326
40°	1293	1298	1330
45°	1261	1260	1299
50°	1234	1243	1281
55°	1221	1216	1270
60°	1204	1203	1264
65°	1189	1152	1257
70°	1166	1100	1224
75°	1079	976	1133
80°	876	797	899
85°	556	497	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	4.3
10°-20°	163.9	10.9
20°-30°	221.3	14.7
30°-40°	253.4	16.8
40°-50°	259.6	17.2
50°-60°	235.5	15.6
60°-70°	183.8	12.2
70°-80°	104.3	6.9
80°-90°	21.9	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°	450.7	29.9
0°-40°	704.1	46.7
0°-60°	1199.1	79.5
0°-90°	1509.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1509.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	705	697	704	705	703	66
15°	589	591	576	579	573	165
25°	476	482	486	474	476	220
35°	404	404	404	404	404	253
45°	331	334	331	345	341	256
55°	260	260	259	268	271	233
65°	187	183	181	189	197	185
75°	104	96	94	99	109	109
85°	18	16	16	15	16	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.6	705.6	705.6	705.6	705.6
2.5°	710.0	704.5	699.8	707.5	706.7
5°	704.9	696.8	703.8	705.3	703.1
7.5°	691.3	686.2	686.6	683.6	683.3
10°	655.7	658.7	652.8	657.9	655.4
12.5°	625.3	627.1	616.8	619.0	616.1
15°	589.3	591.2	576.5	579.4	573.2
17.5°	550.1	556.7	544.6	548.2	541.6
20°	520.7	526.2	526.6	520.7	499.8
22.5°	497.6	503.1	507.5	489.9	487.7
25°	476.3	482.5	485.8	474.1	475.6
27.5°	455.0	462.0	462.0	464.6	461.3
30°	439.6	442.5	437.8	447.3	444.4
32.5°	421.3	422.4	418.3	425.3	415.0
35°	403.6	404.4	403.6	404.0	403.6
37.5°	386.8	384.9	388.2	386.0	393.0
40°	368.0	368.0	369.5	373.2	378.7
42.5°	350.8	352.3	350.4	360.7	362.9
45°	331.4	333.9	331.0	344.6	341.3
47.5°	313.7	314.8	314.1	323.3	324.0
50°	294.7	296.1	296.9	304.9	306.0
52.5°	278.9	278.5	275.9	287.7	289.5
55°	260.2	259.8	259.1	268.2	270.8
57.5°	241.1	241.5	243.3	248.4	254.7
60°	223.8	222.0	223.5	229.7	234.8
62.5°	206.2	202.9	199.6	209.9	214.7
65°	186.8	182.7	180.9	189.3	197.4
67.5°	168.8	162.2	161.1	167.0	176.5
70°	148.2	140.2	139.8	144.2	155.6
72.5°	125.5	118.5	116.7	122.6	132.8
75°	103.8	96.1	93.9	99.4	109.0
77.5°	80.4	74.1	72.7	75.6	83.3
80°	56.5	52.8	51.4	52.5	58.0
82.5°	35.6	33.0	32.3	31.9	34.9
85°	18.0	16.1	16.1	15.0	15.8
87.5°	5.5	5.1	4.8	3.7	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)