

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: P485725

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-27-120-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: P485725
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-LD4-3STD-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

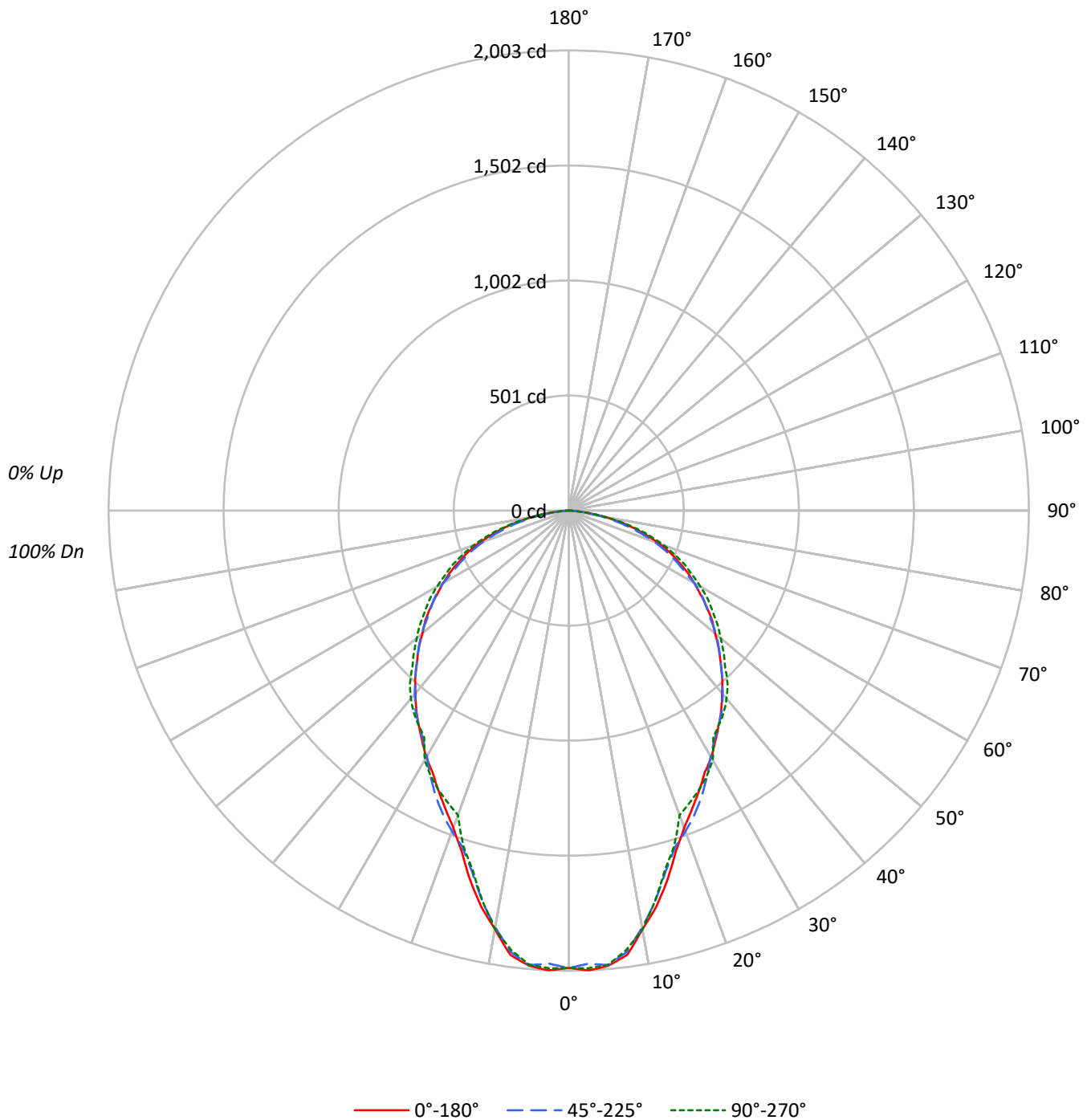
Lumens per Lamp: N/A
Luminaire Lumens: 4257.3 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	5357	5357	5357
5°	5372	5363	5358
10°	5055	5032	5052
15°	4632	4531	4505
20°	4206	4254	4038
25°	3990	4070	3983
30°	3854	3837	3895
35°	3741	3741	3741
40°	3647	3662	3753
45°	3557	3553	3664
50°	3480	3506	3615
55°	3444	3429	3584
60°	3399	3393	3566
65°	3355	3250	3546
70°	3290	3103	3453
75°	3046	2755	3197
80°	2470	2245	2535
85°	1565	1405	1374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.9	4.3
10°-20°	462.2	10.9
20°-30°	624.3	14.7
30°-40°	714.8	16.8
40°-50°	732.2	17.2
50°-60°	664.4	15.6
60°-70°	518.6	12.2
70°-80°	294.1	6.9
80°-90°	61.7	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°	1271.4	29.9
0°-40°	1986.2	46.7
0°-60°	3382.9	79.5
0°-90°	4257.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4257.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1991	1991	1991	1991	1991	
5°	1989	1966	1986	1990	1983	186
15°	1662	1668	1626	1635	1617	465
25°	1344	1361	1371	1338	1342	620
35°	1139	1141	1139	1140	1139	713
45°	935	942	934	972	963	723
55°	734	733	731	757	764	656
65°	527	516	510	534	557	522
75°	293	271	265	280	308	306
85°	51	46	46	42	44	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1990.7	1990.7	1990.7	1990.7	1990.7
2.5°	2003.1	1987.6	1974.1	1995.9	1993.8
5°	1988.6	1965.8	1985.5	1989.6	1983.4
7.5°	1950.3	1935.8	1936.8	1928.6	1927.5
10°	1849.9	1858.2	1841.6	1856.1	1848.9
12.5°	1764.0	1769.1	1740.2	1746.4	1738.1
15°	1662.5	1667.7	1626.3	1634.6	1617.0
17.5°	1551.8	1570.4	1536.2	1546.6	1527.9
20°	1468.9	1484.5	1485.5	1468.9	1409.9
22.5°	1403.7	1419.3	1431.7	1382.0	1375.8
25°	1343.7	1361.3	1370.6	1337.5	1341.6
27.5°	1283.6	1303.3	1303.3	1310.6	1301.2
30°	1240.2	1248.4	1235.0	1261.9	1253.6
32.5°	1188.4	1191.5	1180.1	1199.8	1170.8
35°	1138.7	1140.8	1138.7	1139.7	1138.7
37.5°	1091.1	1085.9	1095.2	1089.0	1108.7
40°	1038.3	1038.3	1042.4	1052.8	1068.3
42.5°	989.6	993.8	988.6	1017.6	1023.8
45°	934.8	942.0	933.7	972.0	962.7
47.5°	885.1	888.2	886.1	912.0	914.1
50°	831.3	835.4	837.5	860.2	863.4
52.5°	786.7	785.7	778.5	811.6	816.8
55°	734.0	732.9	730.8	756.7	764.0
57.5°	680.1	681.2	686.3	700.8	718.4
60°	631.5	626.3	630.4	648.0	662.5
62.5°	581.8	572.5	563.1	592.1	605.6
65°	526.9	515.5	510.4	534.2	556.9
67.5°	476.2	457.6	454.5	471.0	497.9
70°	418.2	395.4	394.4	406.8	438.9
72.5°	354.0	334.4	329.2	345.8	374.7
75°	293.0	271.2	265.0	280.5	307.5
77.5°	226.7	209.1	205.0	213.3	235.0
80°	159.4	149.1	144.9	148.0	163.6
82.5°	100.4	93.2	91.1	90.1	98.3
85°	50.7	45.5	45.5	42.4	44.5
87.5°	15.5	14.5	13.5	10.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)