

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: P485732

Luminaire Tested: **ORLG-24-2-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: P485732
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-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

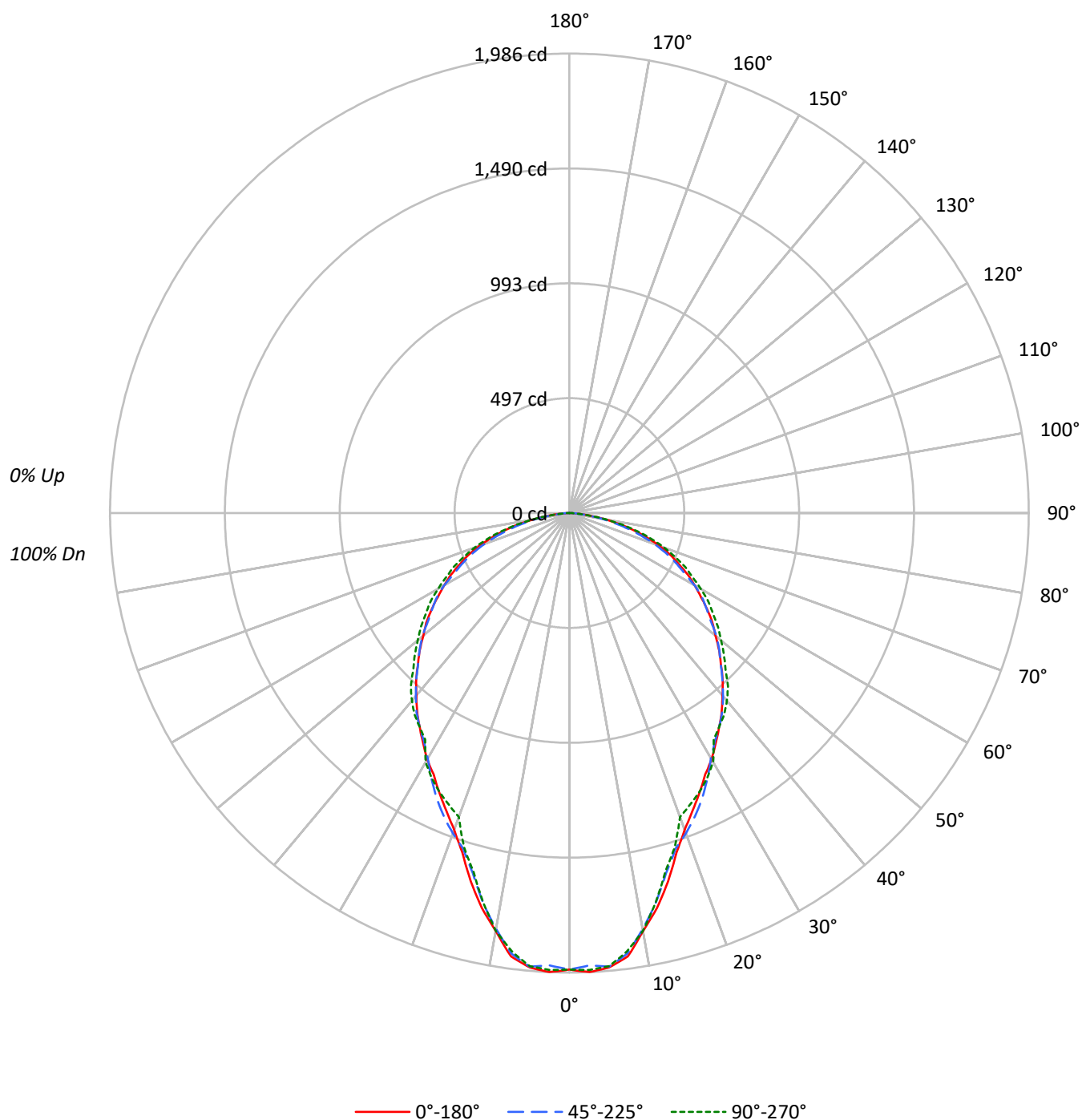
Lumens per Lamp: N/A
Luminaire Lumens: 4220.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5310	5310	5310
5°	5325	5316	5311
10°	5011	4988	5008
15°	4591	4491	4465
20°	4170	4217	4002
25°	3955	4034	3949
30°	3820	3804	3861
35°	3708	3708	3708
40°	3615	3630	3720
45°	3526	3522	3632
50°	3450	3475	3583
55°	3413	3399	3553
60°	3369	3363	3534
65°	3326	3221	3515
70°	3262	3076	3423
75°	3019	2731	3169
80°	2448	2227	2512
85°	1553	1392	1362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.3	4.3
10°-20°	458.2	10.9
20°-30°	618.8	14.7
30°-40°	708.6	16.8
40°-50°	725.8	17.2
50°-60°	658.6	15.6
60°-70°	514.0	12.2
70°-80°	291.5	6.9
80°-90°	61.2	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°	1260.2	29.9
0°-40°	1968.8	46.7
0°-60°	3353.3	79.5
0°-90°	4220.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4220.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1973	1973	1973	1973	1973	
5°	1971	1949	1968	1972	1966	184
15°	1648	1653	1612	1620	1603	461
25°	1332	1349	1359	1326	1330	615
35°	1129	1131	1129	1130	1129	707
45°	927	934	926	964	954	716
55°	728	726	724	750	757	650
65°	522	511	506	530	552	518
75°	290	269	263	278	305	304
85°	50	45	45	42	44	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1973.2	1973.2	1973.2	1973.2	1973.2
2.5°	1985.6	1970.2	1956.8	1978.4	1976.3
5°	1971.2	1948.6	1968.1	1972.2	1966.1
7.5°	1933.2	1918.9	1919.9	1911.7	1910.6
10°	1833.7	1841.9	1825.5	1839.8	1832.7
12.5°	1748.5	1753.6	1724.9	1731.1	1722.9
15°	1648.0	1653.1	1612.0	1620.3	1602.8
17.5°	1538.2	1556.6	1522.8	1533.0	1514.6
20°	1456.1	1471.5	1472.5	1456.1	1397.6
22.5°	1391.4	1406.8	1419.1	1369.9	1363.7
25°	1331.9	1349.4	1358.6	1325.8	1329.9
27.5°	1272.4	1291.9	1291.9	1299.1	1289.8
30°	1229.3	1237.5	1224.2	1250.8	1242.6
32.5°	1178.0	1181.1	1169.8	1189.3	1160.5
35°	1128.7	1130.8	1128.7	1129.8	1128.7
37.5°	1081.5	1076.4	1085.6	1079.5	1099.0
40°	1029.2	1029.2	1033.3	1043.6	1059.0
42.5°	981.0	985.1	979.9	1008.7	1014.8
45°	926.6	933.8	925.6	963.5	954.3
47.5°	877.3	880.4	878.4	904.0	906.1
50°	824.0	828.1	830.1	852.7	855.8
52.5°	779.9	778.8	771.6	804.5	809.6
55°	727.5	726.5	724.4	750.1	757.3
57.5°	674.2	675.2	680.3	694.7	712.1
60°	625.9	620.8	624.9	642.4	656.7
62.5°	576.7	567.4	558.2	586.9	600.3
65°	522.3	511.0	505.9	529.5	552.1
67.5°	472.0	453.5	450.5	466.9	493.6
70°	414.6	392.0	391.0	403.3	435.1
72.5°	350.9	331.4	326.3	342.7	371.5
75°	290.4	268.8	262.7	278.1	304.8
77.5°	224.7	207.3	203.2	211.4	232.9
80°	158.0	147.8	143.7	146.7	162.1
82.5°	99.5	92.4	90.3	89.3	97.5
85°	50.3	45.1	45.1	42.1	44.1
87.5°	15.4	14.4	13.3	10.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)