

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: P485754

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-40-120-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: P485754
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-LD4-4LO-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

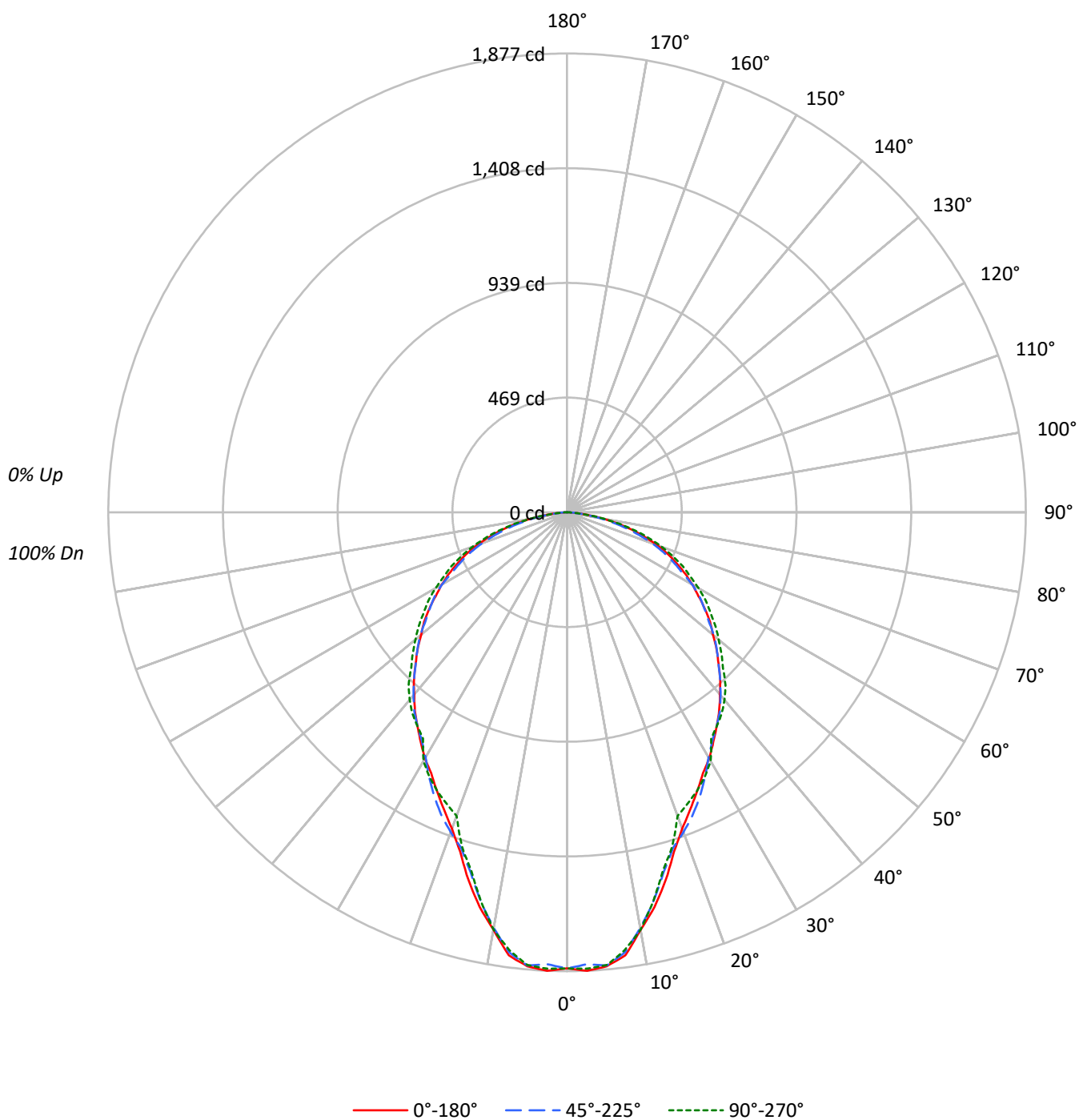
Lumens per Lamp: N/A
Luminaire Lumens: 3990.1 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5021	5021	5021
5°	5035	5027	5021
10°	4738	4716	4735
15°	4341	4246	4222
20°	3942	3987	3784
25°	3739	3814	3733
30°	3612	3597	3651
35°	3506	3506	3506
40°	3418	3432	3517
45°	3334	3330	3434
50°	3262	3286	3388
55°	3227	3214	3359
60°	3185	3180	3342
65°	3144	3046	3324
70°	3084	2909	3237
75°	2855	2583	2996
80°	2315	2104	2376
85°	1467	1318	1288



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.3	4.3
10°-20°	433.2	10.9
20°-30°	585.1	14.7
30°-40°	670.0	16.8
40°-50°	686.3	17.2
50°-60°	622.7	15.6
60°-70°	486.0	12.2
70°-80°	275.7	6.9
80°-90°	57.9	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°	1191.6	29.9
0°-40°	1861.6	46.7
0°-60°	3170.6	79.5
0°-90°	3990.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3990.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1866	1866	1866	1866	1866	
5°	1864	1842	1861	1865	1859	174
15°	1558	1563	1524	1532	1516	435
25°	1259	1276	1285	1254	1257	581
35°	1067	1069	1067	1068	1067	669
45°	876	883	875	911	902	677
55°	688	687	685	709	716	615
65°	494	483	478	501	522	489
75°	275	254	248	263	288	287
85°	48	43	43	40	42	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1865.7	1865.7	1865.7	1865.7	1865.7
2.5°	1877.4	1862.8	1850.2	1870.6	1868.6
5°	1863.8	1842.5	1860.9	1864.8	1858.9
7.5°	1827.9	1814.3	1815.3	1807.5	1806.6
10°	1733.8	1741.5	1726.0	1739.6	1732.8
12.5°	1653.3	1658.1	1630.9	1636.8	1629.0
15°	1558.2	1563.0	1524.2	1532.0	1515.5
17.5°	1454.4	1471.8	1439.8	1449.5	1432.0
20°	1376.7	1391.3	1392.3	1376.7	1321.4
22.5°	1315.6	1330.2	1341.8	1295.2	1289.4
25°	1259.3	1275.8	1284.6	1253.5	1257.4
27.5°	1203.1	1221.5	1221.5	1228.3	1219.6
30°	1162.3	1170.1	1157.5	1182.7	1174.9
32.5°	1113.8	1116.7	1106.1	1124.5	1097.3
35°	1067.2	1069.2	1067.2	1068.2	1067.2
37.5°	1022.6	1017.8	1026.5	1020.7	1039.1
40°	973.1	973.1	977.0	986.7	1001.3
42.5°	927.5	931.4	926.6	953.7	959.6
45°	876.1	882.9	875.1	911.0	902.3
47.5°	829.5	832.5	830.5	854.8	856.7
50°	779.1	783.0	784.9	806.3	809.2
52.5°	737.4	736.4	729.6	760.7	765.5
55°	687.9	686.9	685.0	709.2	716.0
57.5°	637.4	638.4	643.3	656.8	673.3
60°	591.8	587.0	590.9	607.4	620.9
62.5°	545.3	536.5	527.8	555.0	567.6
65°	493.8	483.2	478.3	500.6	522.0
67.5°	446.3	428.8	425.9	441.5	466.7
70°	392.0	370.6	369.7	381.3	411.4
72.5°	331.8	313.4	308.5	324.1	351.2
75°	274.6	254.2	248.4	262.9	288.2
77.5°	212.5	196.0	192.1	199.9	220.2
80°	149.4	139.7	135.8	138.7	153.3
82.5°	94.1	87.3	85.4	84.4	92.2
85°	47.5	42.7	42.7	39.8	41.7
87.5°	14.6	13.6	12.6	9.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)