

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: P485756

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-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: P485756
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-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

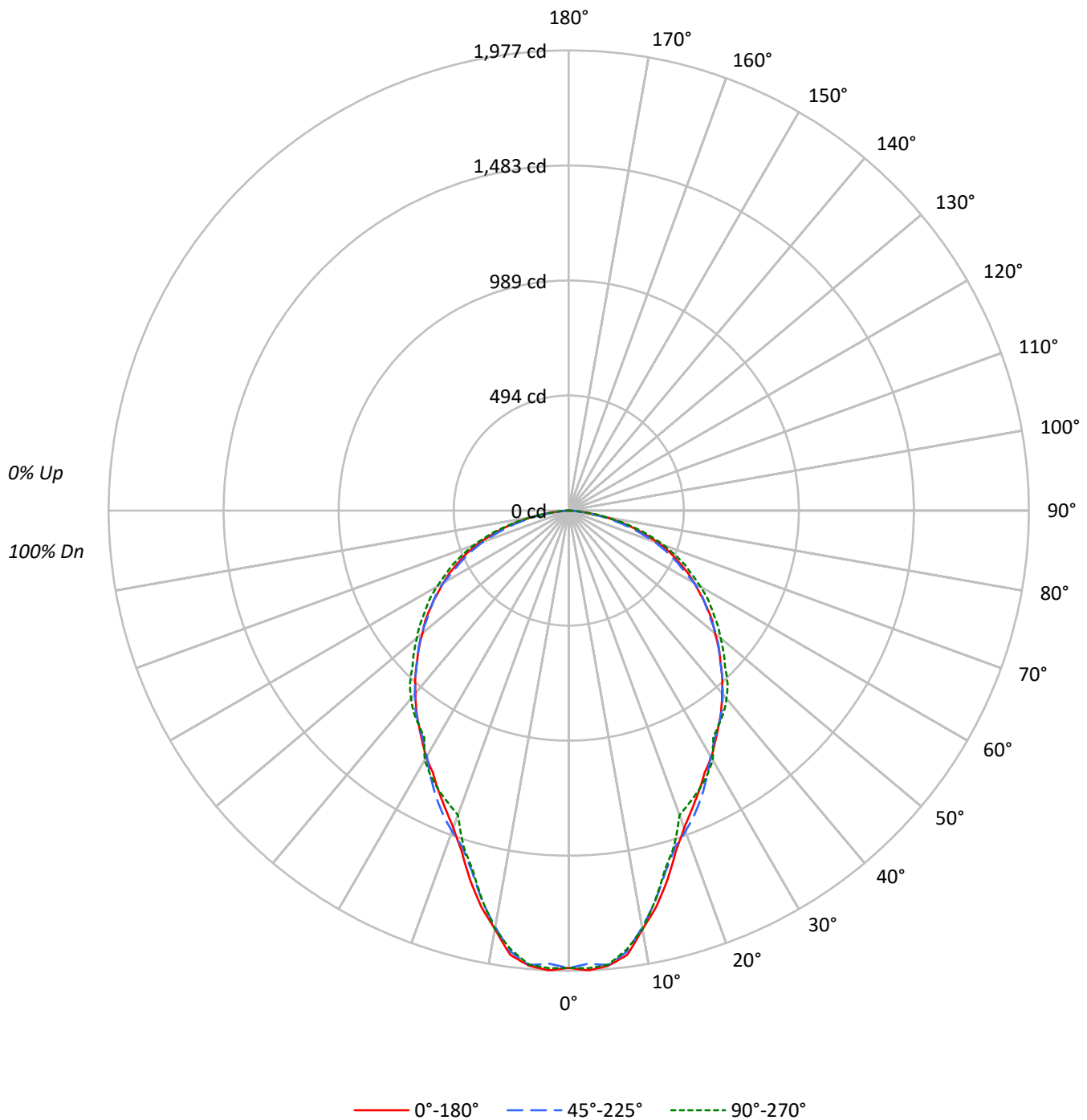
Lumens per Lamp: N/A
Luminaire Lumens: 4201.6 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5287	5287	5287
5°	5301	5293	5288
10°	4989	4966	4986
15°	4571	4471	4446
20°	4151	4198	3985
25°	3937	4016	3931
30°	3803	3787	3844
35°	3692	3692	3692
40°	3600	3614	3704
45°	3511	3507	3616
50°	3435	3460	3567
55°	3399	3384	3537
60°	3354	3349	3519
65°	3311	3207	3500
70°	3247	3062	3408
75°	3006	2719	3154
80°	2438	2216	2501
85°	1547	1389	1355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.5	4.3
10°-20°	456.2	10.9
20°-30°	616.1	14.7
30°-40°	705.5	16.8
40°-50°	722.7	17.2
50°-60°	655.7	15.6
60°-70°	511.8	12.2
70°-80°	290.3	6.9
80°-90°	60.9	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°	1254.7	29.9
0°-40°	1960.3	46.7
0°-60°	3338.6	79.5
0°-90°	4201.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4201.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1965	1965	1965	1965	1965	
5°	1963	1940	1960	1964	1958	183
15°	1641	1646	1605	1613	1596	459
25°	1326	1344	1353	1320	1324	612
35°	1124	1126	1124	1125	1124	704
45°	923	930	922	959	950	713
55°	724	723	721	747	754	647
65°	520	509	504	527	550	515
75°	289	268	262	277	303	302
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°	1964.6	1964.6	1964.6	1964.6	1964.6
2.5°	1976.9	1961.6	1948.3	1969.7	1967.7
5°	1962.6	1940.1	1959.5	1963.6	1957.5
7.5°	1924.8	1910.5	1911.5	1903.3	1902.3
10°	1825.7	1833.9	1817.5	1831.8	1824.7
12.5°	1740.9	1746.0	1717.4	1723.5	1715.4
15°	1640.8	1645.9	1605.0	1613.2	1595.8
17.5°	1531.5	1549.8	1516.1	1526.3	1508.0
20°	1449.7	1465.0	1466.1	1449.7	1391.5
22.5°	1385.4	1400.7	1412.9	1363.9	1357.8
25°	1326.1	1343.5	1352.7	1320.0	1324.1
27.5°	1266.8	1286.3	1286.3	1293.4	1284.2
30°	1223.9	1232.1	1218.8	1245.4	1237.2
32.5°	1172.9	1175.9	1164.7	1184.1	1155.5
35°	1123.8	1125.9	1123.8	1124.8	1123.8
37.5°	1076.8	1071.7	1080.9	1074.8	1094.2
40°	1024.7	1024.7	1028.8	1039.0	1054.3
42.5°	976.7	980.8	975.7	1004.3	1010.4
45°	922.6	929.7	921.5	959.3	950.1
47.5°	873.5	876.6	874.5	900.1	902.1
50°	820.4	824.5	826.5	849.0	852.1
52.5°	776.5	775.4	768.3	801.0	806.1
55°	724.4	723.3	721.3	746.8	754.0
57.5°	671.2	672.2	677.4	691.7	709.0
60°	623.2	618.1	622.2	639.6	653.9
62.5°	574.2	565.0	555.8	584.4	597.7
65°	520.0	508.8	503.7	527.2	549.6
67.5°	470.0	451.6	448.5	464.9	491.4
70°	412.7	390.3	389.2	401.5	433.2
72.5°	349.4	330.0	324.9	341.2	369.8
75°	289.1	267.7	261.5	276.9	303.4
77.5°	223.7	206.4	202.3	210.5	231.9
80°	157.3	147.1	143.0	146.1	161.4
82.5°	99.1	91.9	89.9	88.9	97.1
85°	50.1	45.0	45.0	41.9	43.9
87.5°	15.3	14.3	13.3	10.2	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)