

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: P485695

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-40-120-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: P485695
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-LD4-2STD-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

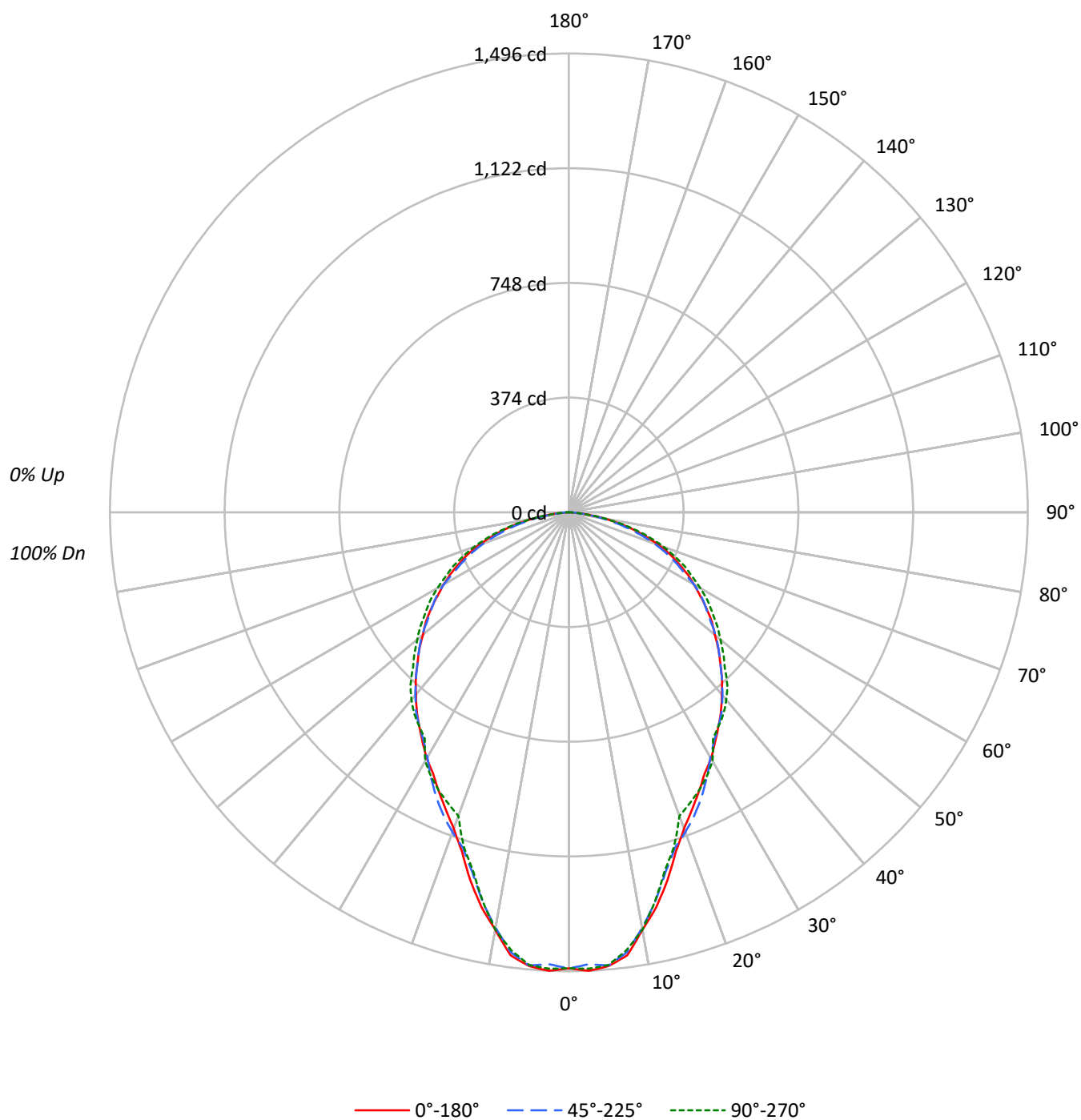
Lumens per Lamp: N/A
Luminaire Lumens: 3179.8 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	4001	4001	4001
5°	4012	4006	4002
10°	3775	3759	3773
15°	3459	3384	3365
20°	3142	3177	3016
25°	2980	3040	2975
30°	2878	2866	2909
35°	2794	2794	2794
40°	2724	2735	2803
45°	2657	2654	2737
50°	2599	2619	2699
55°	2572	2561	2677
60°	2538	2534	2663
65°	2506	2427	2649
70°	2458	2318	2579
75°	2275	2058	2387
80°	1846	1677	1894
85°	1170	1050	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	4.3
10°-20°	345.2	10.9
20°-30°	466.3	14.7
30°-40°	533.9	16.8
40°-50°	546.9	17.2
50°-60°	496.3	15.6
60°-70°	387.3	12.2
70°-80°	219.7	6.9
80°-90°	46.1	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°	949.6	29.9
0°-40°	1483.5	46.7
0°-60°	2526.7	79.5
0°-90°	3179.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3179.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1487	1487	1487	1487	1487	
5°	1485	1468	1483	1486	1481	139
15°	1242	1246	1215	1221	1208	347
25°	1004	1017	1024	999	1002	463
35°	850	852	850	851	850	533
45°	698	704	697	726	719	540
55°	548	547	546	565	571	490
65°	394	385	381	399	416	390
75°	219	203	198	210	230	229
85°	38	34	34	32	33	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1486.8	1486.8	1486.8	1486.8	1486.8
2.5°	1496.1	1484.5	1474.5	1490.7	1489.2
5°	1485.3	1468.3	1483.0	1486.1	1481.4
7.5°	1456.7	1445.9	1446.6	1440.5	1439.7
10°	1381.7	1387.9	1375.5	1386.3	1380.9
12.5°	1317.5	1321.4	1299.7	1304.4	1298.2
15°	1241.7	1245.6	1214.7	1220.9	1207.7
17.5°	1159.0	1172.9	1147.4	1155.1	1141.2
20°	1097.2	1108.8	1109.5	1097.2	1053.1
22.5°	1048.4	1060.0	1069.3	1032.2	1027.6
25°	1003.6	1016.7	1023.7	999.0	1002.1
27.5°	958.8	973.4	973.4	978.9	971.9
30°	926.3	932.5	922.4	942.5	936.3
32.5°	887.6	889.9	881.4	896.1	874.5
35°	850.5	852.1	850.5	851.3	850.5
37.5°	814.9	811.1	818.0	813.4	828.1
40°	775.5	775.5	778.6	786.3	797.9
42.5°	739.2	742.3	738.4	760.0	764.7
45°	698.2	703.6	697.4	726.0	719.1
47.5°	661.1	663.4	661.9	681.2	682.7
50°	620.9	624.0	625.5	642.5	644.8
52.5°	587.6	586.9	581.4	606.2	610.0
55°	548.2	547.4	545.9	565.2	570.6
57.5°	508.0	508.8	512.6	523.5	536.6
60°	471.6	467.8	470.9	484.0	494.8
62.5°	434.5	427.6	420.6	442.3	452.3
65°	393.6	385.0	381.2	399.0	416.0
67.5°	355.7	341.8	339.4	351.8	371.9
70°	312.4	295.4	294.6	303.9	327.8
72.5°	264.4	249.7	245.9	258.2	279.9
75°	218.8	202.6	197.9	209.5	229.6
77.5°	169.3	156.2	153.1	159.3	175.5
80°	119.1	111.3	108.2	110.6	122.2
82.5°	75.0	69.6	68.0	67.3	73.5
85°	37.9	34.0	34.0	31.7	33.2
87.5°	11.6	10.8	10.1	7.7	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)