

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: P485629

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1HI-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: P485629
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-LD4-1HI-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

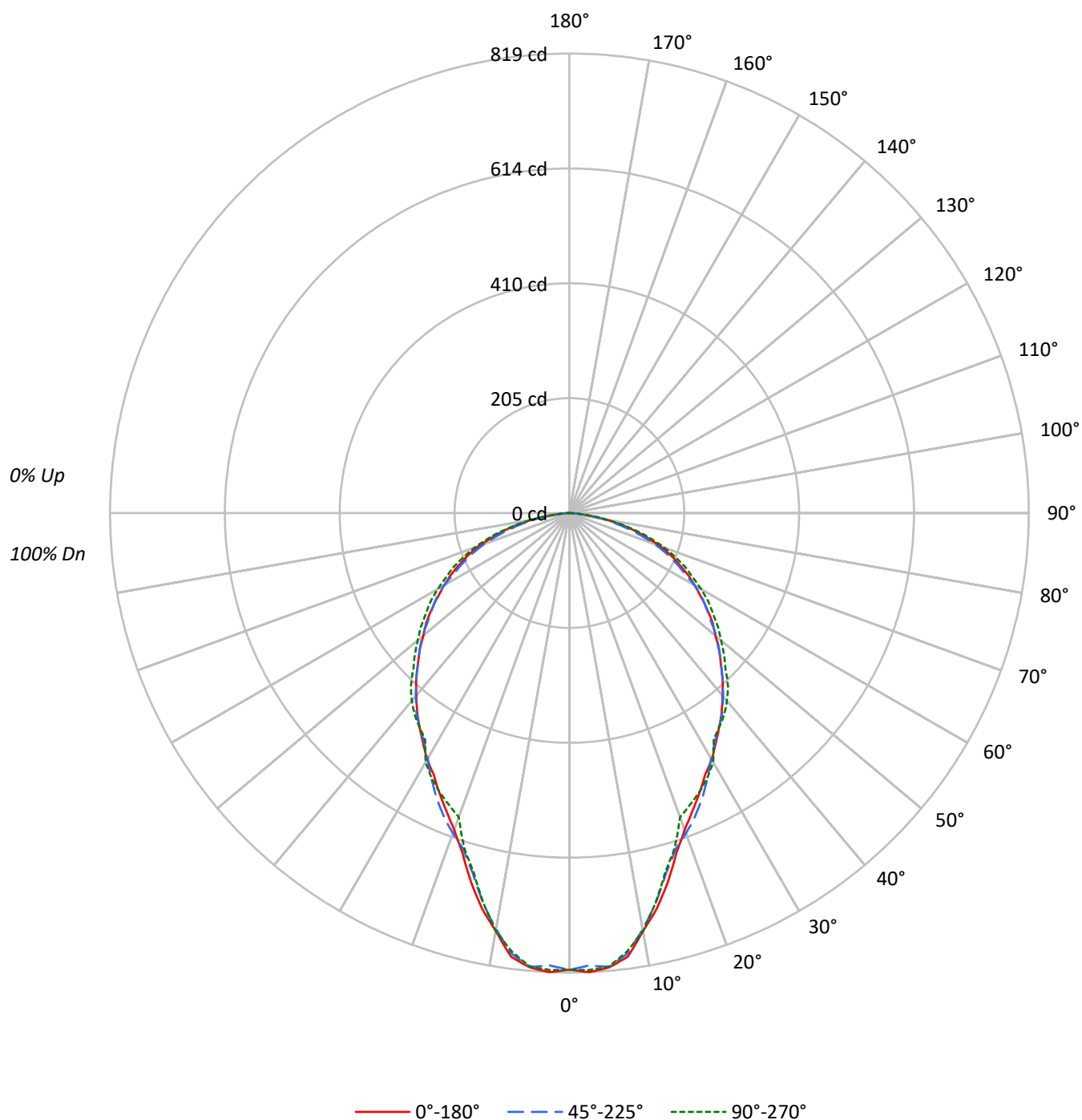
Lumens per Lamp: N/A
Luminaire Lumens: 1740.6 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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°	2190	2190	2190
5°	2196	2193	2190
10°	2067	2057	2065
15°	1894	1852	1842
20°	1720	1739	1651
25°	1631	1664	1629
30°	1575	1569	1592
35°	1530	1530	1530
40°	1491	1497	1534
45°	1455	1453	1498
50°	1423	1433	1478
55°	1408	1402	1466
60°	1390	1387	1458
65°	1372	1329	1450
70°	1345	1269	1412
75°	1246	1126	1307
80°	1010	919	1037
85°	639	574	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	4.3
10°-20°	189.0	10.9
20°-30°	255.2	14.7
30°-40°	292.3	16.8
40°-50°	299.4	17.2
50°-60°	271.6	15.6
60°-70°	212.0	12.2
70°-80°	120.3	6.9
80°-90°	25.2	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°	519.8	29.9
0°-40°	812.1	46.7
0°-60°	1383.1	79.5
0°-90°	1740.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1740.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	813	804	812	814	811	76
15°	680	682	665	668	661	190
25°	549	557	560	547	548	254
35°	466	466	466	466	466	292
45°	382	385	382	397	394	296
55°	300	300	299	309	312	268
65°	215	211	209	218	228	214
75°	120	111	108	115	126	125
85°	21	19	19	17	18	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	813.9	813.9	813.9	813.9	813.9
2.5°	819.0	812.6	807.1	816.0	815.2
5°	813.0	803.7	811.8	813.5	810.9
7.5°	797.4	791.5	791.9	788.5	788.1
10°	756.3	759.7	752.9	758.9	755.9
12.5°	721.2	723.3	711.5	714.0	710.6
15°	679.7	681.8	664.9	668.3	661.1
17.5°	634.4	642.1	628.1	632.3	624.7
20°	600.6	606.9	607.3	600.6	576.5
22.5°	573.9	580.3	585.3	565.0	562.5
25°	549.4	556.6	560.4	546.8	548.5
27.5°	524.8	532.9	532.9	535.8	532.0
30°	507.0	510.4	504.9	515.9	512.5
32.5°	485.9	487.1	482.5	490.5	478.7
35°	465.6	466.4	465.6	466.0	465.6
37.5°	446.1	444.0	447.8	445.2	453.3
40°	424.5	424.5	426.2	430.4	436.8
42.5°	404.6	406.3	404.2	416.0	418.6
45°	382.2	385.1	381.8	397.4	393.6
47.5°	361.9	363.1	362.3	372.9	373.7
50°	339.9	341.6	342.4	351.7	353.0
52.5°	321.7	321.2	318.3	331.8	333.9
55°	300.1	299.7	298.8	309.4	312.4
57.5°	278.1	278.5	280.6	286.5	293.7
60°	258.2	256.1	257.8	264.9	270.9
62.5°	237.9	234.1	230.2	242.1	247.6
65°	215.4	210.8	208.7	218.4	227.7
67.5°	194.7	187.1	185.8	192.6	203.6
70°	171.0	161.7	161.3	166.3	179.5
72.5°	144.7	136.7	134.6	141.4	153.2
75°	119.8	110.9	108.3	114.7	125.7
77.5°	92.7	85.5	83.8	87.2	96.1
80°	65.2	60.9	59.3	60.5	66.9
82.5°	41.1	38.1	37.2	36.8	40.2
85°	20.7	18.6	18.6	17.4	18.2
87.5°	6.3	5.9	5.5	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)