

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: P485680

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-35-120-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: P485680
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-LD4-2LO-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

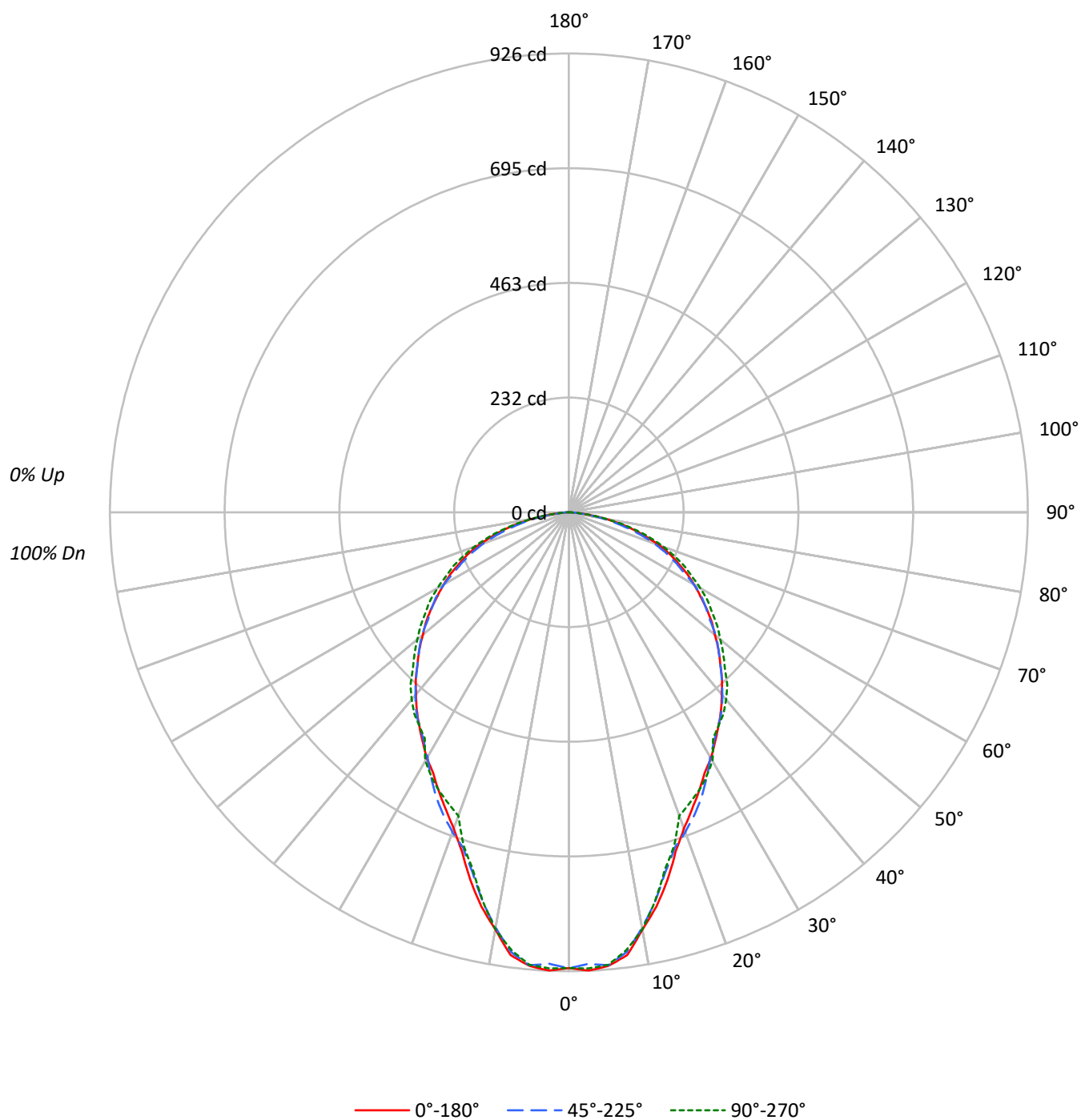
Lumens per Lamp: N/A
Luminaire Lumens: 1967.1 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2475	2475	2475
5°	2482	2478	2476
10°	2335	2325	2334
15°	2140	2093	2081
20°	1944	1966	1866
25°	1844	1880	1841
30°	1780	1773	1800
35°	1728	1728	1728
40°	1685	1692	1734
45°	1644	1642	1693
50°	1608	1620	1670
55°	1591	1584	1656
60°	1570	1568	1647
65°	1550	1501	1638
70°	1520	1434	1596
75°	1408	1273	1477
80°	1142	1038	1172
85°	722	648	636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	4.3
10°-20°	213.6	10.9
20°-30°	288.4	14.7
30°-40°	330.3	16.8
40°-50°	338.3	17.2
50°-60°	307.0	15.6
60°-70°	239.6	12.2
70°-80°	135.9	6.9
80°-90°	28.5	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°	587.4	29.9
0°-40°	917.7	46.7
0°-60°	1563.1	79.5
0°-90°	1967.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1967.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	919	908	917	919	916	86
15°	768	771	751	755	747	215
25°	621	629	633	618	620	286
35°	526	527	526	527	526	330
45°	432	435	431	449	445	334
55°	339	339	338	350	353	303
65°	244	238	236	247	257	241
75°	135	125	122	130	142	142
85°	23	21	21	20	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	919.8	919.8	919.8	919.8	919.8
2.5°	925.5	918.4	912.1	922.2	921.2
5°	918.8	908.3	917.4	919.3	916.5
7.5°	901.1	894.4	894.9	891.1	890.6
10°	854.7	858.6	850.9	857.6	854.3
12.5°	815.0	817.4	804.0	806.9	803.1
15°	768.2	770.6	751.4	755.3	747.1
17.5°	717.0	725.6	709.8	714.6	706.0
20°	678.7	685.9	686.4	678.7	651.5
22.5°	648.6	655.8	661.5	638.6	635.7
25°	620.9	629.0	633.3	618.0	619.9
27.5°	593.1	602.2	602.2	605.5	601.2
30°	573.0	576.8	570.6	583.1	579.2
32.5°	549.1	550.5	545.3	554.4	541.0
35°	526.1	527.1	526.1	526.6	526.1
37.5°	504.1	501.8	506.1	503.2	512.3
40°	479.7	479.7	481.7	486.4	493.6
42.5°	457.3	459.2	456.8	470.2	473.1
45°	431.9	435.3	431.4	449.1	444.8
47.5°	409.0	410.4	409.4	421.4	422.4
50°	384.1	386.0	387.0	397.5	398.9
52.5°	363.5	363.0	359.7	375.0	377.4
55°	339.1	338.6	337.7	349.6	353.0
57.5°	314.3	314.7	317.1	323.8	332.0
60°	291.8	289.4	291.3	299.4	306.1
62.5°	268.8	264.5	260.2	273.6	279.8
65°	243.5	238.2	235.8	246.8	257.3
67.5°	220.0	211.4	210.0	217.6	230.1
70°	193.2	182.7	182.2	188.0	202.8
72.5°	163.6	154.5	152.1	159.8	173.2
75°	135.4	125.3	122.4	129.6	142.1
77.5°	104.8	96.6	94.7	98.5	108.6
80°	73.7	68.9	67.0	68.4	75.6
82.5°	46.4	43.0	42.1	41.6	45.4
85°	23.4	21.0	21.0	19.6	20.6
87.5°	7.2	6.7	6.2	4.8	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)