

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: P485635

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1HI-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: P485635
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-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

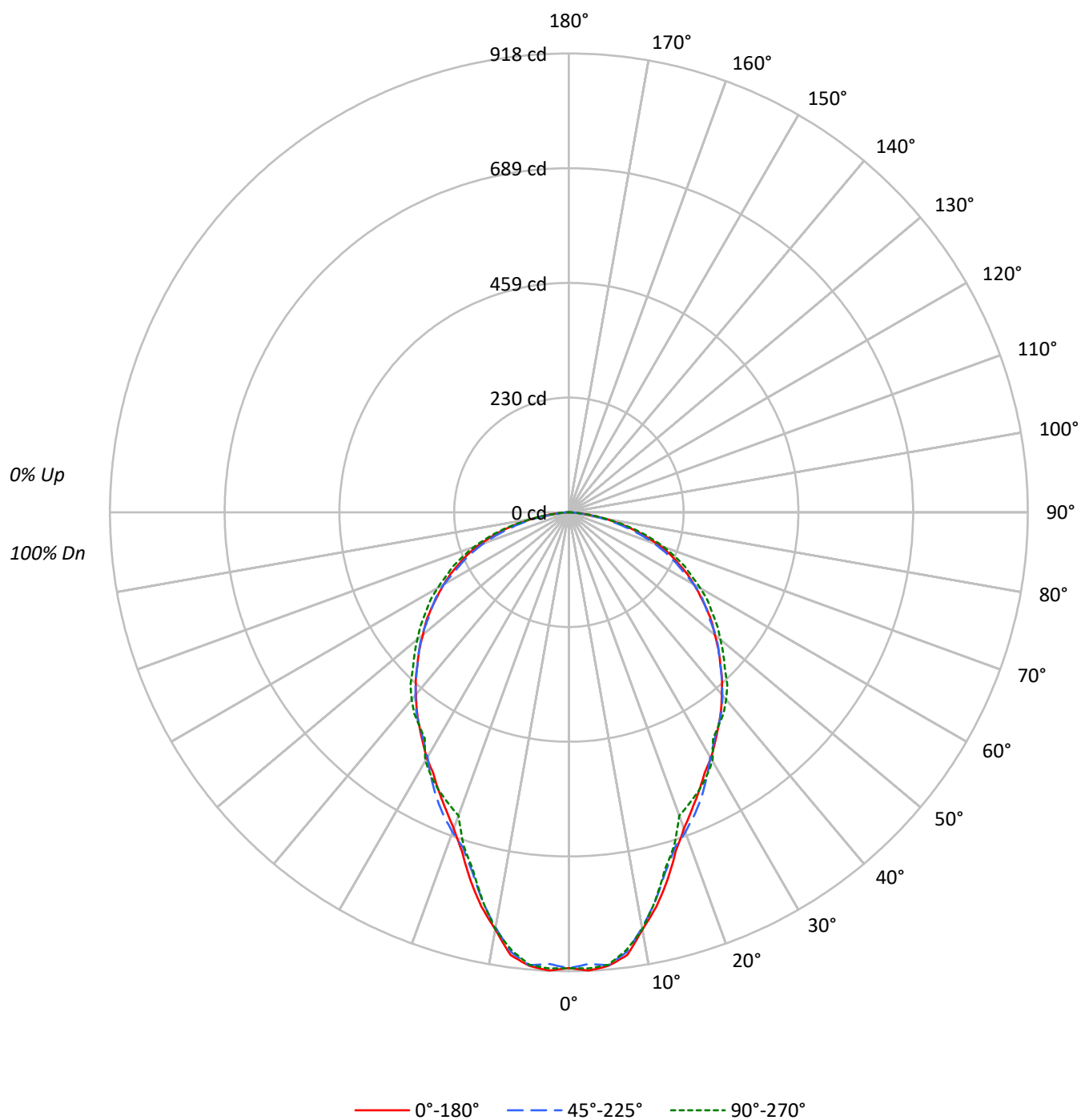
Lumens per Lamp: N/A
Luminaire Lumens: 1950.1 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2454	2454	2454
5°	2461	2457	2454
10°	2316	2305	2314
15°	2121	2075	2064
20°	1927	1949	1849
25°	1828	1864	1825
30°	1765	1758	1784
35°	1713	1713	1713
40°	1671	1677	1719
45°	1630	1628	1678
50°	1594	1606	1656
55°	1577	1571	1642
60°	1557	1554	1633
65°	1537	1489	1624
70°	1507	1422	1582
75°	1395	1262	1464
80°	1131	1029	1161
85°	716	645	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	4.3
10°-20°	211.7	10.9
20°-30°	285.9	14.7
30°-40°	327.4	16.8
40°-50°	335.4	17.2
50°-60°	304.3	15.6
60°-70°	237.5	12.2
70°-80°	134.7	6.9
80°-90°	28.3	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°	582.4	29.9
0°-40°	909.8	46.7
0°-60°	1549.6	79.5
0°-90°	1950.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1950.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	911	900	910	911	908	85
15°	762	764	745	749	741	213
25°	616	624	628	613	614	284
35°	522	522	522	522	522	327
45°	428	432	428	445	441	331
55°	336	336	335	347	350	300
65°	241	236	234	245	255	239
75°	134	124	121	128	141	140
85°	23	21	21	19	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	911.9	911.9	911.9	911.9	911.9
2.5°	917.5	910.4	904.3	914.2	913.3
5°	910.9	900.5	909.5	911.4	908.5
7.5°	893.4	886.7	887.2	883.4	882.9
10°	847.4	851.2	843.6	850.2	846.9
12.5°	808.0	810.4	797.1	799.9	796.2
15°	761.5	763.9	744.9	748.7	740.7
17.5°	710.8	719.3	703.7	708.4	699.9
20°	672.9	680.0	680.5	672.9	645.8
22.5°	643.0	650.1	655.8	633.0	630.2
25°	615.5	623.5	627.8	612.6	614.5
27.5°	588.0	597.0	597.0	600.3	596.0
30°	568.1	571.9	565.7	578.0	574.2
32.5°	544.4	545.8	540.6	549.6	536.3
35°	521.6	522.5	521.6	522.1	521.6
37.5°	499.8	497.4	501.7	498.8	507.8
40°	475.6	475.6	477.5	482.2	489.4
42.5°	453.3	455.2	452.8	466.1	469.0
45°	428.2	431.5	427.7	445.3	441.0
47.5°	405.4	406.8	405.9	417.8	418.7
50°	380.8	382.7	383.6	394.0	395.5
52.5°	360.4	359.9	356.6	371.8	374.1
55°	336.2	335.7	334.8	346.6	349.9
57.5°	311.5	312.0	314.4	321.0	329.1
60°	289.3	286.9	288.8	296.8	303.5
62.5°	266.5	262.2	258.0	271.2	277.4
65°	241.4	236.1	233.8	244.7	255.1
67.5°	218.1	209.6	208.2	215.8	228.1
70°	191.6	181.1	180.7	186.4	201.1
72.5°	162.2	153.2	150.8	158.4	171.7
75°	134.2	124.2	121.4	128.5	140.8
77.5°	103.8	95.8	93.9	97.7	107.6
80°	73.0	68.3	66.4	67.8	74.9
82.5°	46.0	42.7	41.7	41.3	45.0
85°	23.2	20.9	20.9	19.4	20.4
87.5°	7.1	6.6	6.2	4.7	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)