

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: P485782

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-20-120-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: P485782
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-LD4-5LO-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

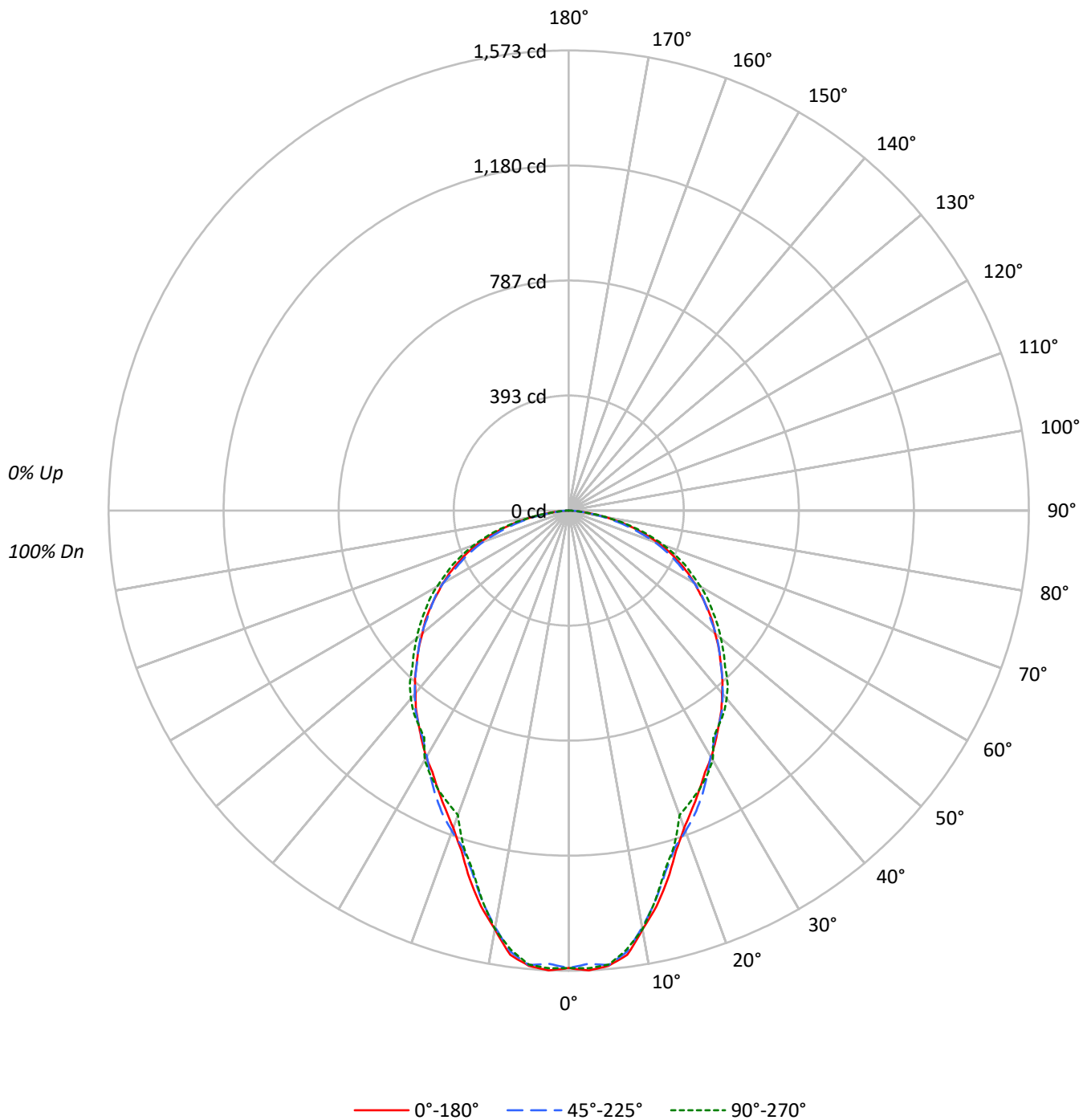
Lumens per Lamp: N/A
Luminaire Lumens: 3344.1 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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			
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°	4208	4208	4208
5°	4219	4213	4209
10°	3971	3953	3968
15°	3638	3559	3538
20°	3304	3342	3172
25°	3134	3197	3129
30°	3027	3014	3060
35°	2939	2939	2939
40°	2865	2876	2948
45°	2794	2791	2878
50°	2734	2754	2839
55°	2705	2693	2815
60°	2669	2665	2801
65°	2635	2553	2786
70°	2585	2437	2713
75°	2392	2165	2511
80°	1940	1764	1991
85°	1229	1105	1081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	4.3
10°-20°	363.1	10.9
20°-30°	490.3	14.7
30°-40°	561.5	16.8
40°-50°	575.2	17.2
50°-60°	521.9	15.6
60°-70°	407.3	12.2
70°-80°	231.0	6.9
80°-90°	48.5	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°	998.7	29.9
0°-40°	1560.2	46.7
0°-60°	2657.3	79.5
0°-90°	3344.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3344.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1564	1564	1564	1564	1564	
5°	1562	1544	1560	1563	1558	146
15°	1306	1310	1277	1284	1270	365
25°	1056	1069	1077	1051	1054	487
35°	894	896	894	895	894	560
45°	734	740	734	764	756	568
55°	576	576	574	594	600	515
65°	414	405	401	420	438	410
75°	230	213	208	220	242	241
85°	40	36	36	33	35	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1563.7	1563.7	1563.7	1563.7	1563.7
2.5°	1573.4	1561.2	1550.7	1567.7	1566.1
5°	1562.0	1544.2	1559.6	1562.9	1558.0
7.5°	1532.0	1520.6	1521.4	1514.9	1514.1
10°	1453.1	1459.6	1446.6	1458.0	1452.3
12.5°	1385.6	1389.7	1366.9	1371.8	1365.3
15°	1305.9	1310.0	1277.4	1284.0	1270.1
17.5°	1218.9	1233.5	1206.7	1214.8	1200.2
20°	1153.8	1166.0	1166.9	1153.8	1107.5
22.5°	1102.6	1114.8	1124.6	1085.5	1080.7
25°	1055.5	1069.3	1076.6	1050.6	1053.8
27.5°	1008.3	1023.7	1023.7	1029.4	1022.1
30°	974.1	980.7	970.1	991.2	984.7
32.5°	933.5	935.9	927.0	942.4	919.7
35°	894.5	896.1	894.5	895.3	894.5
37.5°	857.1	853.0	860.3	855.4	870.9
40°	815.6	815.6	818.8	827.0	839.2
42.5°	777.4	780.6	776.6	799.3	804.2
45°	734.3	740.0	733.5	763.5	756.2
47.5°	695.2	697.7	696.1	716.4	718.0
50°	653.0	656.2	657.8	675.7	678.2
52.5°	618.0	617.2	611.5	637.5	641.6
55°	576.5	575.7	574.1	594.4	600.1
57.5°	534.2	535.0	539.1	550.5	564.3
60°	496.0	492.0	495.2	509.0	520.4
62.5°	457.0	449.7	442.3	465.1	475.7
65°	413.9	404.9	400.9	419.6	437.5
67.5°	374.0	359.4	357.0	370.0	391.1
70°	328.5	310.6	309.8	319.6	344.8
72.5°	278.1	262.6	258.6	271.6	294.4
75°	230.1	213.0	208.2	220.4	241.5
77.5°	178.1	164.3	161.0	167.5	184.6
80°	125.2	117.1	113.8	116.3	128.5
82.5°	78.9	73.2	71.6	70.7	77.2
85°	39.8	35.8	35.8	33.3	35.0
87.5°	12.2	11.4	10.6	8.1	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)