

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: P485689

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-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: P485689
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-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

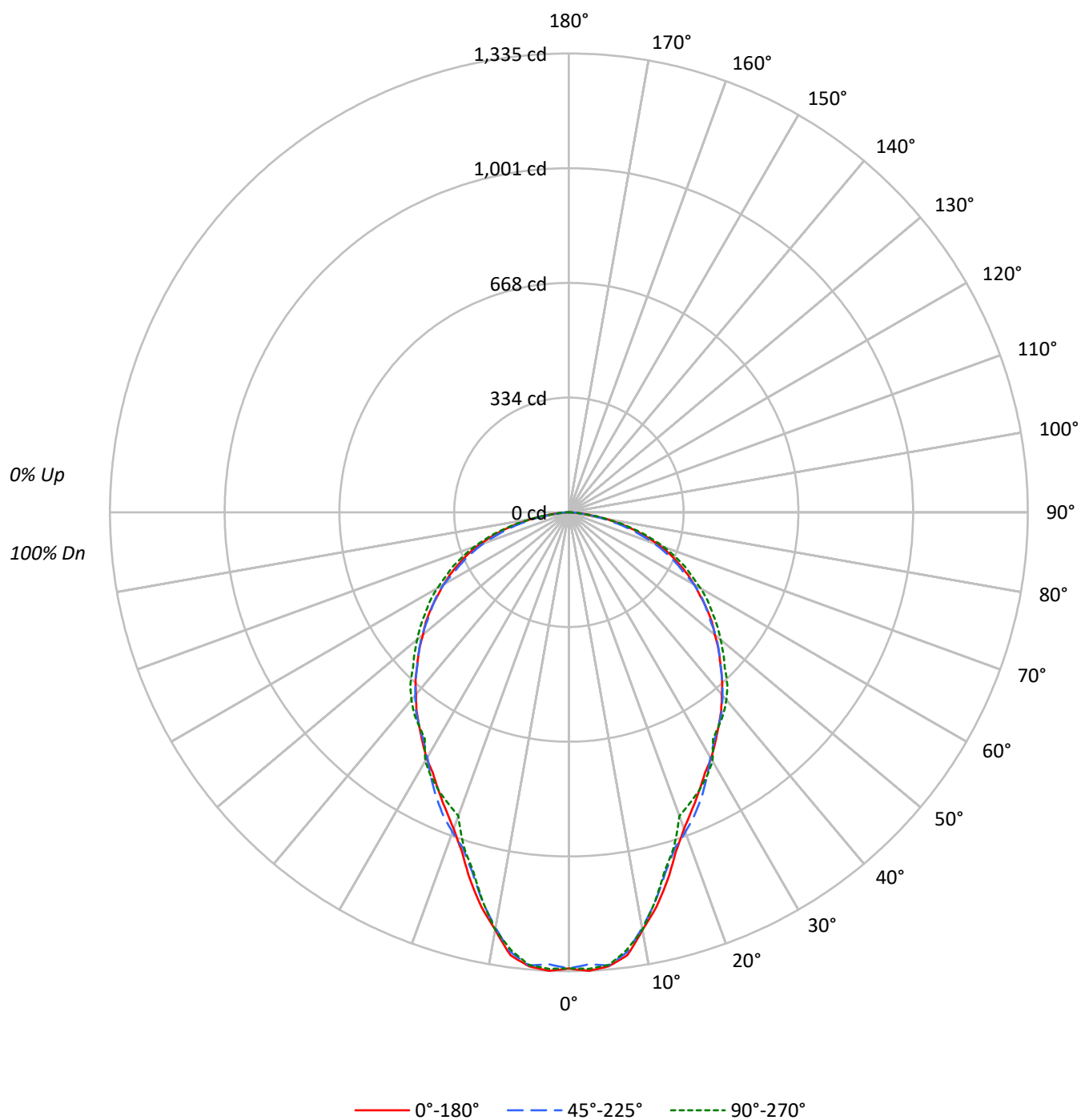
Lumens per Lamp: N/A
Luminaire Lumens: 2838.2 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3571	3571	3571
5°	3581	3576	3572
10°	3370	3355	3368
15°	3088	3020	3003
20°	2804	2836	2692
25°	2660	2713	2656
30°	2569	2558	2597
35°	2494	2494	2494
40°	2432	2441	2502
45°	2372	2369	2442
50°	2320	2337	2410
55°	2296	2286	2389
60°	2266	2262	2377
65°	2237	2166	2364
70°	2194	2068	2302
75°	2031	1837	2131
80°	1647	1497	1689
85°	1044	939	917



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	4.3
10°-20°	308.2	10.9
20°-30°	416.2	14.7
30°-40°	476.6	16.8
40°-50°	488.2	17.2
50°-60°	442.9	15.6
60°-70°	345.7	12.2
70°-80°	196.1	6.9
80°-90°	41.2	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°	847.6	29.9
0°-40°	1324.1	46.7
0°-60°	2255.2	79.5
0°-90°	2838.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2838.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1326	1311	1324	1326	1322	124
15°	1108	1112	1084	1090	1078	310
25°	896	908	914	892	894	413
35°	759	760	759	760	759	476
45°	623	628	622	648	642	482
55°	489	489	487	504	509	437
65°	351	344	340	356	371	348
75°	195	181	177	187	205	204
85°	34	30	30	28	30	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1327.1	1327.1	1327.1	1327.1	1327.1
2.5°	1335.4	1325.0	1316.1	1330.6	1329.2
5°	1325.7	1310.6	1323.7	1326.4	1322.3
7.5°	1300.2	1290.5	1291.2	1285.7	1285.0
10°	1233.3	1238.8	1227.7	1237.4	1232.6
12.5°	1176.0	1179.4	1160.1	1164.2	1158.7
15°	1108.3	1111.8	1084.2	1089.7	1078.0
17.5°	1034.5	1046.9	1024.2	1031.1	1018.6
20°	979.3	989.6	990.3	979.3	940.0
22.5°	935.8	946.2	954.4	921.3	917.2
25°	895.8	907.5	913.7	891.6	894.4
27.5°	855.8	868.9	868.9	873.7	867.5
30°	826.8	832.3	823.3	841.3	835.7
32.5°	792.3	794.3	786.7	799.9	780.5
35°	759.1	760.5	759.1	759.8	759.1
37.5°	727.4	723.9	730.2	726.0	739.1
40°	692.2	692.2	695.0	701.9	712.2
42.5°	659.8	662.5	659.1	678.4	682.5
45°	623.2	628.0	622.5	648.0	641.8
47.5°	590.1	592.1	590.8	608.0	609.4
50°	554.2	556.9	558.3	573.5	575.6
52.5°	524.5	523.8	519.0	541.1	544.5
55°	489.3	488.6	487.2	504.5	509.3
57.5°	453.4	454.1	457.6	467.2	478.9
60°	421.0	417.5	420.3	432.0	441.7
62.5°	387.9	381.6	375.4	394.8	403.7
65°	351.3	343.7	340.2	356.1	371.3
67.5°	317.5	305.0	303.0	314.0	332.0
70°	278.8	263.6	262.9	271.2	292.6
72.5°	236.0	222.9	219.5	230.5	249.8
75°	195.3	180.8	176.7	187.0	205.0
77.5°	151.1	139.4	136.6	142.2	156.7
80°	106.3	99.4	96.6	98.7	109.0
82.5°	66.9	62.1	60.7	60.0	65.6
85°	33.8	30.4	30.4	28.3	29.7
87.5°	10.4	9.7	9.0	6.9	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)