

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: P485690

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-30-120-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: P485690
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-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

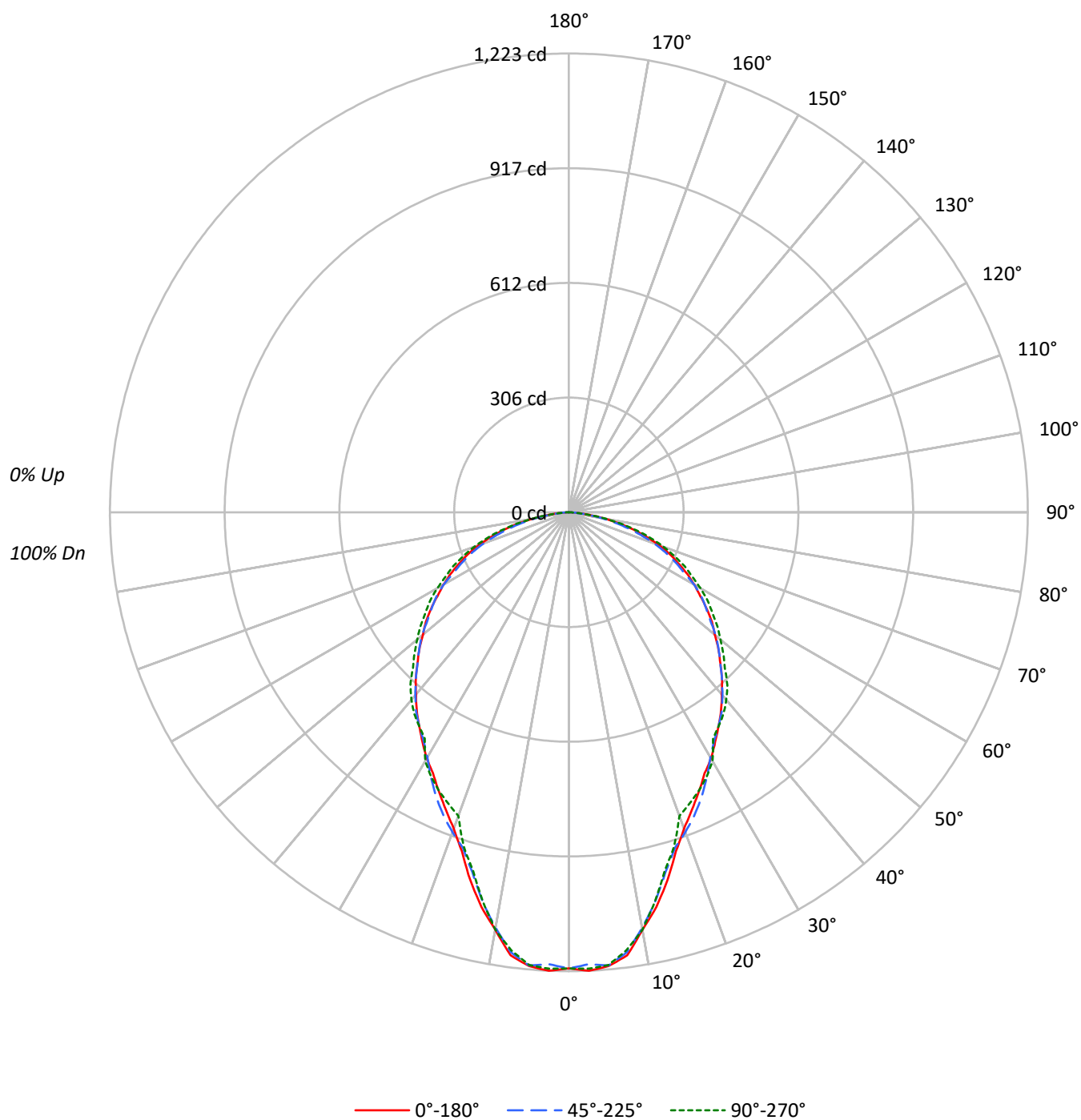
Lumens per Lamp: N/A
Luminaire Lumens: 2599.6 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3271	3271	3271
5°	3280	3275	3271
10°	3087	3073	3085
15°	2828	2766	2751
20°	2569	2598	2465
25°	2436	2485	2432
30°	2353	2343	2379
35°	2284	2284	2284
40°	2227	2236	2291
45°	2172	2170	2237
50°	2125	2141	2207
55°	2103	2094	2189
60°	2075	2072	2178
65°	2048	1984	2166
70°	2009	1895	2109
75°	1860	1682	1952
80°	1508	1371	1548
85°	957	858	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	4.3
10°-20°	282.3	10.9
20°-30°	381.2	14.7
30°-40°	436.5	16.8
40°-50°	447.1	17.2
50°-60°	405.7	15.6
60°-70°	316.6	12.2
70°-80°	179.6	6.9
80°-90°	37.7	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°	776.3	29.9
0°-40°	1212.8	46.7
0°-60°	2065.7	79.5
0°-90°	2599.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2599.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1214	1200	1212	1215	1211	113
15°	1015	1018	993	998	987	284
25°	820	831	837	817	819	379
35°	695	697	695	696	695	436
45°	571	575	570	594	588	441
55°	448	448	446	462	466	401
65°	322	315	312	326	340	319
75°	179	166	162	171	188	187
85°	31	28	28	26	27	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1215.6	1215.6	1215.6	1215.6	1215.6
2.5°	1223.1	1213.7	1205.4	1218.7	1217.4
5°	1214.3	1200.4	1212.4	1214.9	1211.1
7.5°	1190.9	1182.0	1182.7	1177.6	1177.0
10°	1129.6	1134.6	1124.5	1133.4	1129.0
12.5°	1077.1	1080.3	1062.6	1066.4	1061.3
15°	1015.2	1018.3	993.0	998.1	987.4
17.5°	947.5	958.9	938.1	944.4	933.0
20°	897.0	906.4	907.1	897.0	860.9
22.5°	857.1	866.6	874.2	843.9	840.1
25°	820.5	831.2	836.9	816.7	819.2
27.5°	783.8	795.8	795.8	800.3	794.6
30°	757.3	762.3	754.1	770.5	765.5
32.5°	725.7	727.6	720.6	732.6	714.9
35°	695.3	696.6	695.3	696.0	695.3
37.5°	666.2	663.1	668.8	665.0	677.0
40°	634.0	634.0	636.5	642.9	652.3
42.5°	604.3	606.8	603.7	621.4	625.2
45°	570.8	575.2	570.2	593.6	587.9
47.5°	540.5	542.4	541.1	556.9	558.2
50°	507.6	510.1	511.4	525.3	527.2
52.5°	480.4	479.8	475.3	495.6	498.7
55°	448.2	447.5	446.3	462.1	466.5
57.5°	415.3	415.9	419.1	427.9	438.7
60°	385.6	382.4	385.0	395.7	404.6
62.5°	355.2	349.6	343.9	361.6	369.8
65°	321.7	314.8	311.6	326.2	340.1
67.5°	290.8	279.4	277.5	287.6	304.0
70°	255.4	241.5	240.8	248.4	268.0
72.5°	216.2	204.2	201.0	211.1	228.8
75°	178.9	165.6	161.8	171.3	187.7
77.5°	138.4	127.7	125.2	130.2	143.5
80°	97.3	91.0	88.5	90.4	99.9
82.5°	61.3	56.9	55.6	55.0	60.1
85°	31.0	27.8	27.8	25.9	27.2
87.5°	9.5	8.8	8.2	6.3	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)