

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: P485659

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-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: P485659
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-LD4-1STD-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

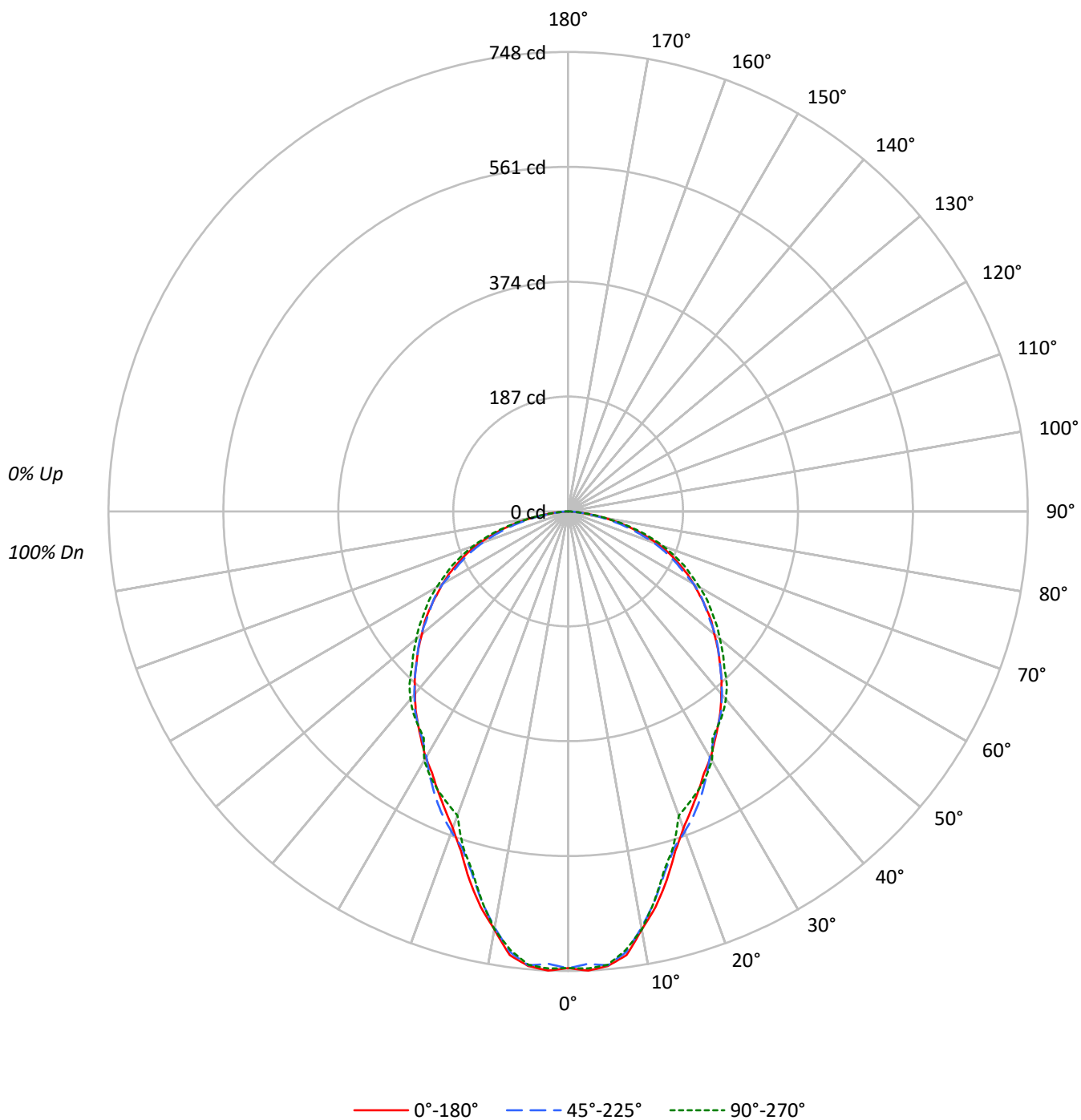
Lumens per Lamp: N/A
Luminaire Lumens: 1589.9 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	2000	2000	2000
5°	2006	2003	2001
10°	1888	1879	1887
15°	1730	1692	1682
20°	1571	1589	1508
25°	1490	1520	1488
30°	1439	1433	1455
35°	1397	1397	1397
40°	1362	1368	1402
45°	1329	1327	1368
50°	1299	1310	1350
55°	1286	1280	1339
60°	1269	1267	1331
65°	1253	1214	1324
70°	1229	1159	1290
75°	1137	1029	1194
80°	922	838	947
85°	584	525	513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	4.3
10°-20°	172.6	10.9
20°-30°	233.1	14.7
30°-40°	267.0	16.8
40°-50°	273.5	17.2
50°-60°	248.1	15.6
60°-70°	193.7	12.2
70°-80°	109.8	6.9
80°-90°	23.1	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°	474.8	29.9
0°-40°	741.8	46.7
0°-60°	1263.3	79.5
0°-90°	1589.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1589.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	743	743	743	743	743	
5°	743	734	742	743	741	69
15°	621	623	607	610	604	174
25°	502	508	512	500	501	232
35°	425	426	425	426	425	266
45°	349	352	349	363	360	270
55°	274	274	273	283	285	245
65°	197	192	191	200	208	195
75°	109	101	99	105	115	114
85°	19	17	17	16	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.4	743.4	743.4	743.4	743.4
2.5°	748.1	742.3	737.2	745.4	744.6
5°	742.7	734.1	741.5	743.0	740.7
7.5°	728.3	722.9	723.3	720.2	719.8
10°	690.8	693.9	687.8	693.2	690.5
12.5°	658.8	660.7	649.9	652.2	649.1
15°	620.9	622.8	607.3	610.4	603.9
17.5°	579.5	586.5	573.7	577.6	570.6
20°	548.6	554.4	554.8	548.6	526.5
22.5°	524.2	530.0	534.7	516.1	513.8
25°	501.8	508.4	511.9	499.5	501.0
27.5°	479.4	486.7	486.7	489.4	486.0
30°	463.1	466.2	461.2	471.3	468.2
32.5°	443.8	445.0	440.7	448.1	437.2
35°	425.3	426.0	425.3	425.6	425.3
37.5°	407.5	405.5	409.0	406.7	414.0
40°	387.8	387.8	389.3	393.2	399.0
42.5°	369.6	371.1	369.2	380.0	382.3
45°	349.1	351.8	348.7	363.0	359.5
47.5°	330.5	331.7	330.9	340.6	341.4
50°	310.4	312.0	312.8	321.3	322.4
52.5°	293.8	293.4	290.7	303.1	305.0
55°	274.1	273.7	272.9	282.6	285.3
57.5°	254.0	254.4	256.3	261.7	268.3
60°	235.8	233.9	235.4	242.0	247.4
62.5°	217.3	213.8	210.3	221.1	226.2
65°	196.8	192.5	190.6	199.5	208.0
67.5°	177.8	170.9	169.7	175.9	186.0
70°	156.2	147.7	147.3	151.9	163.9
72.5°	132.2	124.9	122.9	129.1	139.9
75°	109.4	101.3	99.0	104.8	114.8
77.5°	84.7	78.1	76.5	79.6	87.8
80°	59.5	55.7	54.1	55.3	61.1
82.5°	37.5	34.8	34.0	33.6	36.7
85°	18.9	17.0	17.0	15.9	16.6
87.5°	5.8	5.4	5.0	3.9	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)