

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: P485657

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-35-120-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: P485657
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-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

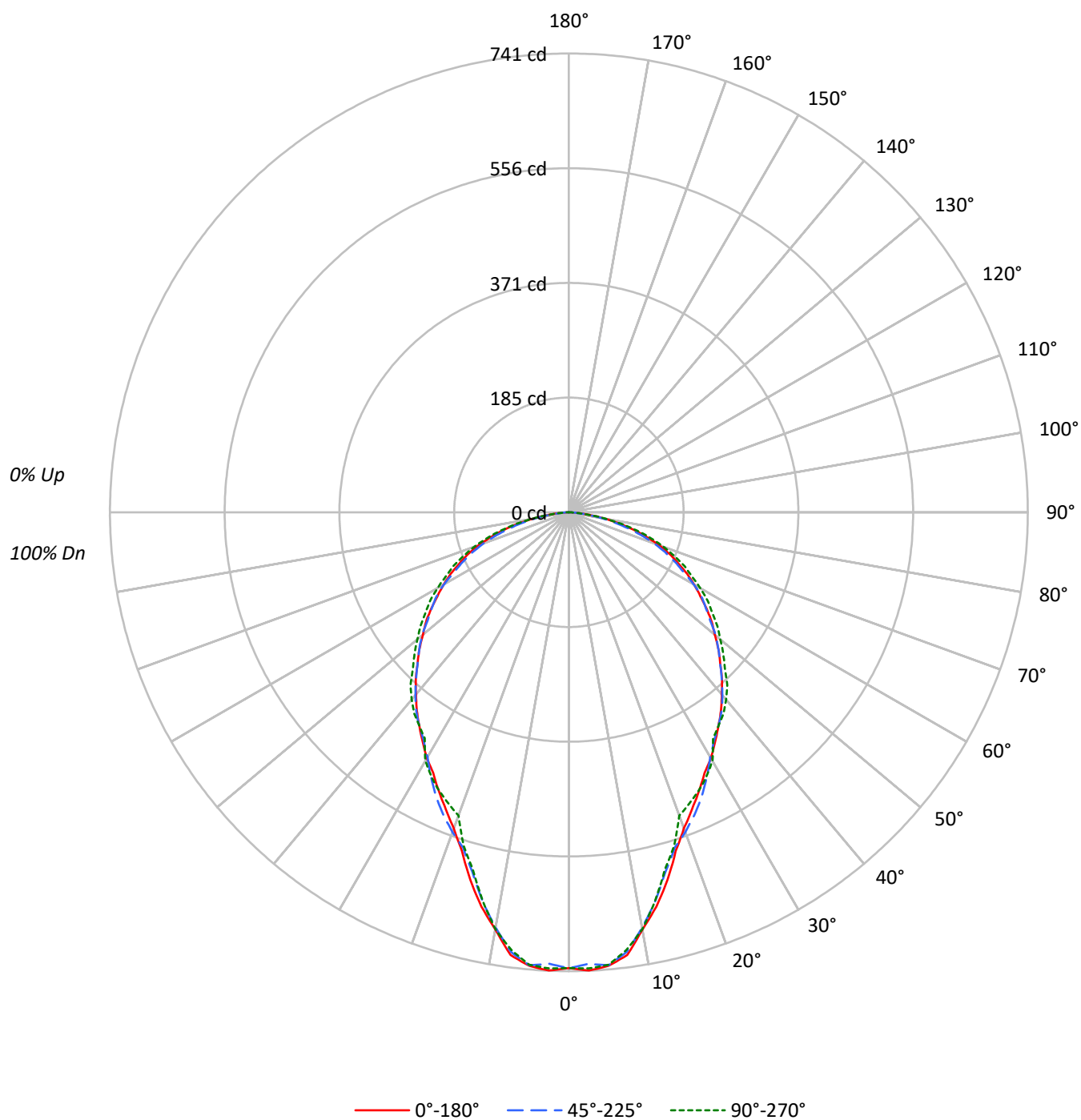
Lumens per Lamp: N/A
Luminaire Lumens: 1574.1 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1981	1981	1981
5°	1986	1983	1981
10°	1869	1861	1868
15°	1712	1675	1666
20°	1555	1573	1493
25°	1475	1505	1473
30°	1425	1419	1440
35°	1383	1383	1383
40°	1349	1354	1388
45°	1315	1314	1355
50°	1287	1296	1336
55°	1273	1268	1325
60°	1257	1255	1319
65°	1240	1202	1311
70°	1216	1147	1277
75°	1126	1019	1182
80°	913	831	938
85°	580	519	509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	4.3
10°-20°	170.9	10.9
20°-30°	230.8	14.7
30°-40°	264.3	16.8
40°-50°	270.7	17.2
50°-60°	245.7	15.6
60°-70°	191.7	12.2
70°-80°	108.7	6.9
80°-90°	22.8	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°	470.1	29.9
0°-40°	734.4	46.7
0°-60°	1250.8	79.5
0°-90°	1574.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1574.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	735	727	734	736	733	69
15°	615	617	601	604	598	172
25°	497	503	507	494	496	229
35°	421	422	421	421	421	264
45°	346	348	345	359	356	267
55°	271	271	270	280	282	243
65°	195	191	189	198	206	193
75°	108	100	98	104	114	113
85°	19	17	17	16	16	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	736.0	736.0	736.0	736.0	736.0
2.5°	740.6	734.9	729.9	737.9	737.2
5°	735.3	726.9	734.1	735.7	733.4
7.5°	721.1	715.8	716.1	713.1	712.7
10°	684.0	687.0	680.9	686.3	683.6
12.5°	652.2	654.1	643.4	645.7	642.6
15°	614.7	616.6	601.3	604.4	597.9
17.5°	573.7	580.6	568.0	571.8	564.9
20°	543.1	548.9	549.3	543.1	521.3
22.5°	519.0	524.8	529.3	511.0	508.7
25°	496.8	503.3	506.8	494.5	496.0
27.5°	474.6	481.9	481.9	484.6	481.1
30°	458.5	461.6	456.6	466.6	463.5
32.5°	439.4	440.6	436.3	443.6	432.9
35°	421.0	421.8	421.0	421.4	421.0
37.5°	403.4	401.5	405.0	402.7	409.9
40°	383.9	383.9	385.4	389.3	395.0
42.5°	365.9	367.4	365.5	376.2	378.5
45°	345.6	348.3	345.2	359.4	356.0
47.5°	327.3	328.4	327.6	337.2	338.0
50°	307.4	308.9	309.6	318.1	319.2
52.5°	290.9	290.5	287.8	300.1	302.0
55°	271.4	271.0	270.2	279.8	282.5
57.5°	251.5	251.9	253.8	259.1	265.6
60°	233.5	231.6	233.1	239.6	245.0
62.5°	215.1	211.7	208.2	218.9	223.9
65°	194.8	190.6	188.7	197.5	205.9
67.5°	176.1	169.2	168.0	174.2	184.1
70°	154.6	146.2	145.8	150.4	162.3
72.5°	130.9	123.6	121.7	127.8	138.6
75°	108.3	100.3	98.0	103.7	113.7
77.5°	83.8	77.3	75.8	78.8	86.9
80°	58.9	55.1	53.6	54.7	60.5
82.5°	37.1	34.4	33.7	33.3	36.4
85°	18.8	16.8	16.8	15.7	16.5
87.5°	5.7	5.4	5.0	3.8	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)