

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: P485655

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-30-120-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: P485655
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-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

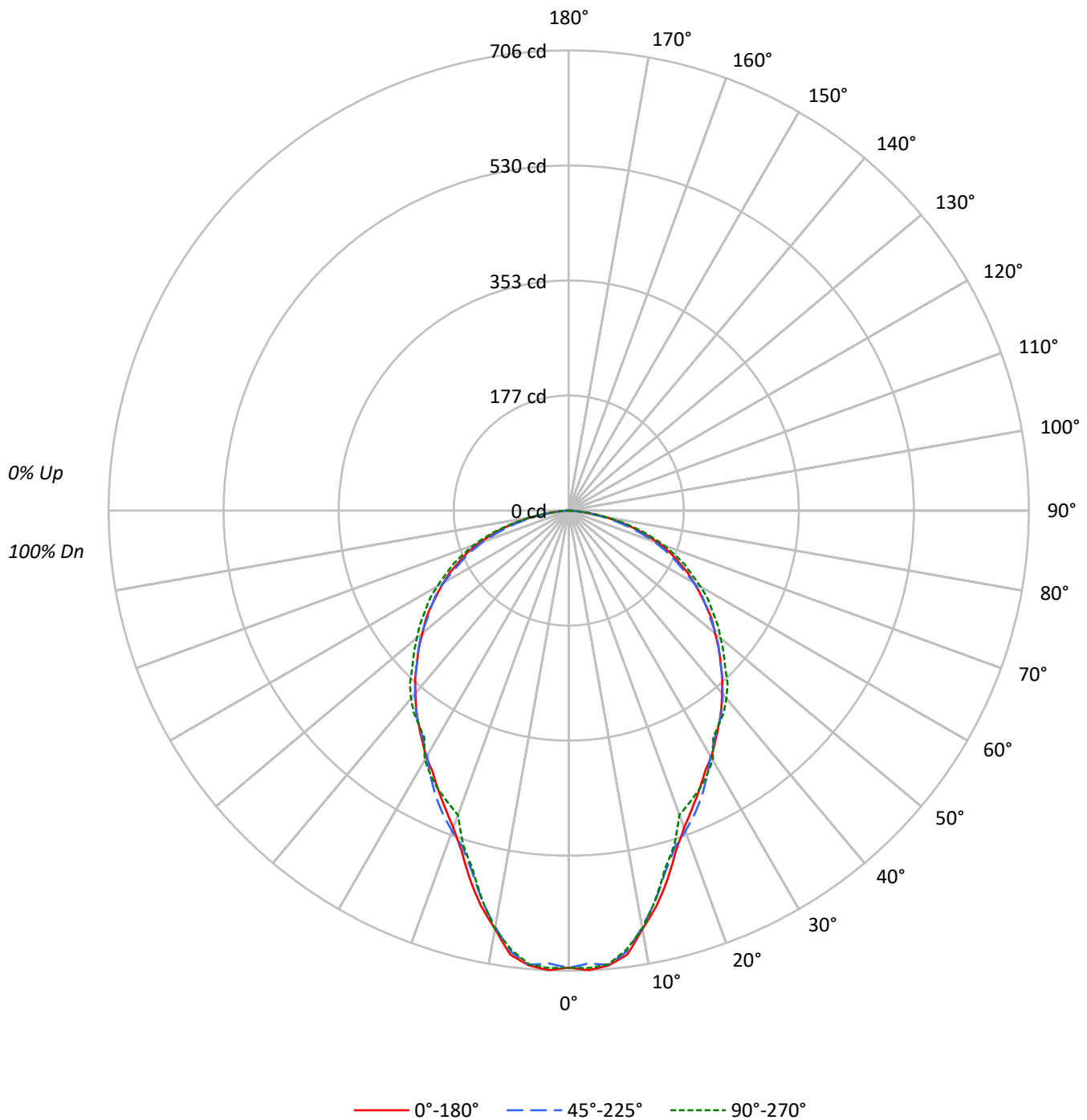
Lumens per Lamp: N/A
Luminaire Lumens: 1499.8 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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					10
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°	1887	1887	1887
5°	1893	1890	1887
10°	1781	1773	1780
15°	1632	1596	1587
20°	1482	1499	1422
25°	1406	1434	1403
30°	1358	1352	1372
35°	1318	1318	1318
40°	1285	1290	1322
45°	1253	1252	1291
50°	1226	1235	1273
55°	1213	1208	1263
60°	1197	1195	1256
65°	1182	1145	1249
70°	1159	1093	1216
75°	1073	971	1126
80°	871	792	893
85°	553	494	485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	4.3
10°-20°	162.8	10.9
20°-30°	219.9	14.7
30°-40°	251.8	16.8
40°-50°	258.0	17.2
50°-60°	234.1	15.6
60°-70°	182.7	12.2
70°-80°	103.6	6.9
80°-90°	21.7	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°	447.9	29.9
0°-40°	699.7	46.7
0°-60°	1191.8	79.5
0°-90°	1499.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1499.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	701	692	700	701	699	65
15°	586	588	573	576	570	164
25°	473	480	483	471	473	218
35°	401	402	401	402	401	251
45°	329	332	329	342	339	255
55°	259	258	258	267	269	231
65°	186	182	180	188	196	184
75°	103	96	93	99	108	108
85°	18	16	16	15	16	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	701.3	701.3	701.3	701.3	701.3
2.5°	705.7	700.2	695.5	703.1	702.4
5°	700.6	692.5	699.5	700.9	698.7
7.5°	687.1	682.0	682.3	679.4	679.0
10°	651.7	654.6	648.8	653.9	651.3
12.5°	621.4	623.3	613.0	615.2	612.3
15°	585.7	587.5	572.9	575.8	569.6
17.5°	546.7	553.2	541.2	544.8	538.3
20°	517.5	523.0	523.3	517.5	496.7
22.5°	494.5	500.0	504.4	486.9	484.7
25°	473.4	479.6	482.8	471.2	472.6
27.5°	452.2	459.1	459.1	461.7	458.4
30°	436.9	439.8	435.1	444.6	441.6
32.5°	418.7	419.8	415.7	422.7	412.5
35°	401.2	401.9	401.2	401.5	401.2
37.5°	384.4	382.6	385.8	383.7	390.6
40°	365.8	365.8	367.2	370.9	376.4
42.5°	348.6	350.1	348.3	358.5	360.7
45°	329.3	331.9	328.9	342.4	339.2
47.5°	311.8	312.9	312.2	321.3	322.0
50°	292.8	294.3	295.0	303.1	304.1
52.5°	277.2	276.8	274.2	285.9	287.7
55°	258.6	258.2	257.5	266.6	269.1
57.5°	239.6	240.0	241.8	246.9	253.1
60°	222.5	220.6	222.1	228.3	233.4
62.5°	205.0	201.7	198.4	208.6	213.3
65°	185.6	181.6	179.8	188.2	196.2
67.5°	167.8	161.2	160.1	165.9	175.4
70°	147.3	139.3	138.9	143.3	154.6
72.5°	124.7	117.8	116.0	121.8	132.0
75°	103.2	95.5	93.4	98.8	108.3
77.5°	79.9	73.7	72.2	75.1	82.8
80°	56.2	52.5	51.1	52.2	57.6
82.5°	35.4	32.8	32.1	31.7	34.6
85°	17.9	16.0	16.0	15.0	15.7
87.5°	5.5	5.1	4.7	3.6	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)