

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: P485650

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-20-120-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: P485650
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-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

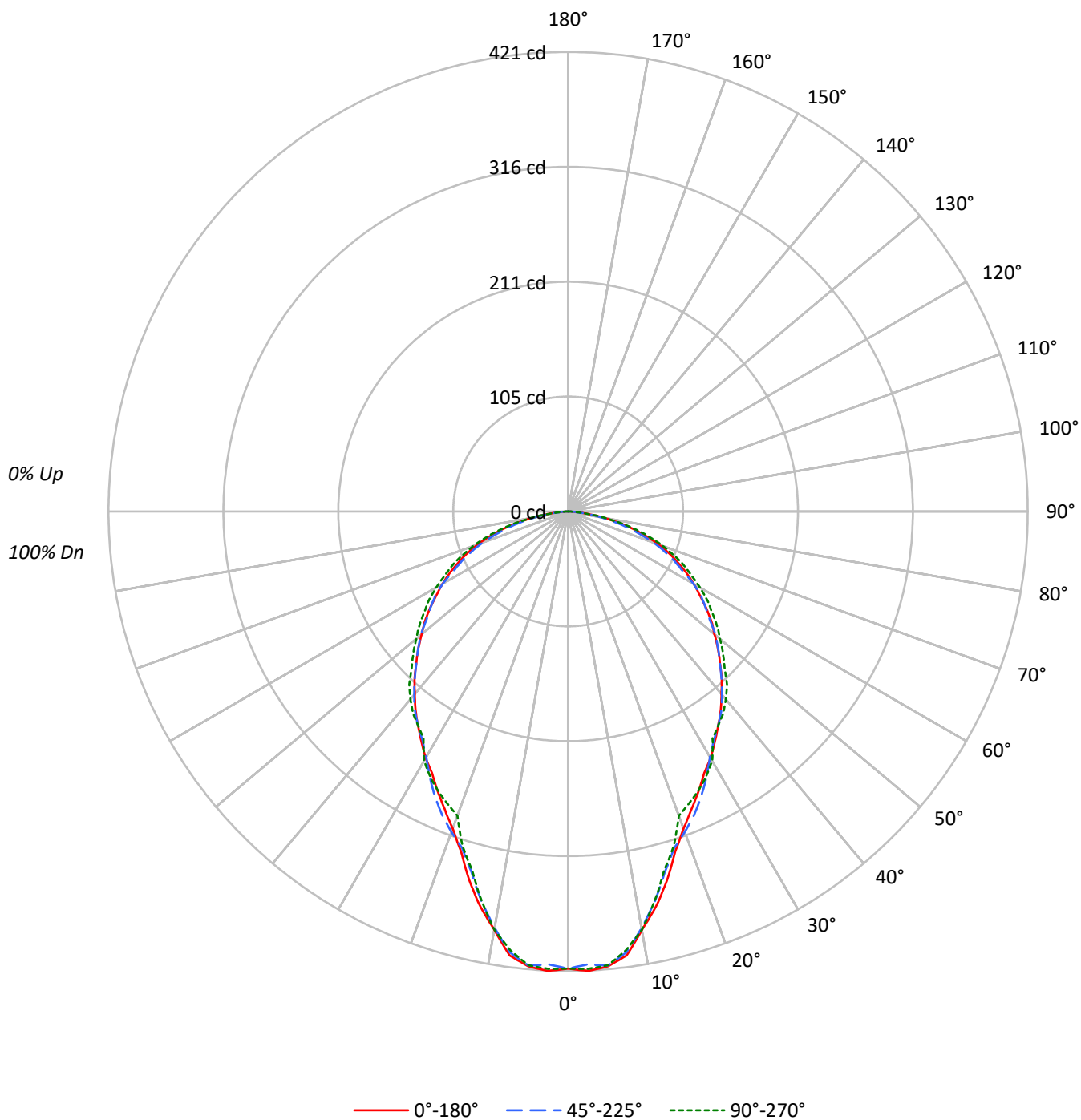
Lumens per Lamp: N/A
Luminaire Lumens: 895.7 lumens
Efficiency: N/A
Efficacy: 54.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1127	1127	1127
5°	1130	1128	1127
10°	1063	1059	1063
15°	975	953	948
20°	885	895	849
25°	839	856	838
30°	811	807	820
35°	787	787	787
40°	767	770	790
45°	749	748	771
50°	732	738	760
55°	724	722	754
60°	715	714	750
65°	706	684	746
70°	692	653	726
75°	640	580	673
80°	519	473	533
85°	330	296	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	4.3
10°-20°	97.3	10.9
20°-30°	131.3	14.7
30°-40°	150.4	16.8
40°-50°	154.1	17.2
50°-60°	139.8	15.6
60°-70°	109.1	12.2
70°-80°	61.9	6.9
80°-90°	13.0	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°	267.5	29.9
0°-40°	417.9	46.7
0°-60°	711.7	79.5
0°-90°	895.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	419	419	419	419	419	
5°	418	414	418	419	417	39
15°	350	351	342	344	340	98
25°	283	286	288	281	282	130
35°	240	240	240	240	240	150
45°	197	198	196	204	203	152
55°	154	154	154	159	161	138
65°	111	108	107	112	117	110
75°	62	57	56	59	65	64
85°	11	10	10	9	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	418.8	418.8	418.8	418.8	418.8
2.5°	421.4	418.2	415.3	419.9	419.5
5°	418.4	413.6	417.7	418.6	417.3
7.5°	410.3	407.3	407.5	405.8	405.5
10°	389.2	390.9	387.5	390.5	389.0
12.5°	371.1	372.2	366.1	367.4	365.7
15°	349.8	350.9	342.2	343.9	340.2
17.5°	326.5	330.4	323.2	325.4	321.5
20°	309.1	312.3	312.5	309.1	296.6
22.5°	295.3	298.6	301.2	290.8	289.5
25°	282.7	286.4	288.4	281.4	282.3
27.5°	270.1	274.2	274.2	275.7	273.8
30°	260.9	262.7	259.8	265.5	263.8
32.5°	250.0	250.7	248.3	252.4	246.3
35°	239.6	240.0	239.6	239.8	239.6
37.5°	229.6	228.5	230.4	229.1	233.3
40°	218.4	218.4	219.3	221.5	224.8
42.5°	208.2	209.1	208.0	214.1	215.4
45°	196.7	198.2	196.5	204.5	202.6
47.5°	186.2	186.9	186.4	191.9	192.3
50°	174.9	175.8	176.2	181.0	181.6
52.5°	165.5	165.3	163.8	170.8	171.8
55°	154.4	154.2	153.8	159.2	160.7
57.5°	143.1	143.3	144.4	147.4	151.2
60°	132.9	131.8	132.6	136.3	139.4
62.5°	122.4	120.4	118.5	124.6	127.4
65°	110.9	108.5	107.4	112.4	117.2
67.5°	100.2	96.3	95.6	99.1	104.8
70°	88.0	83.2	83.0	85.6	92.3
72.5°	74.5	70.3	69.3	72.7	78.8
75°	61.6	57.1	55.8	59.0	64.7
77.5°	47.7	44.0	43.1	44.9	49.4
80°	33.5	31.4	30.5	31.1	34.4
82.5°	21.1	19.6	19.2	18.9	20.7
85°	10.7	9.6	9.6	8.9	9.4
87.5°	3.3	3.0	2.8	2.2	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)