

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560620

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560620
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2STD-35-UNV-93-96-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535.0 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

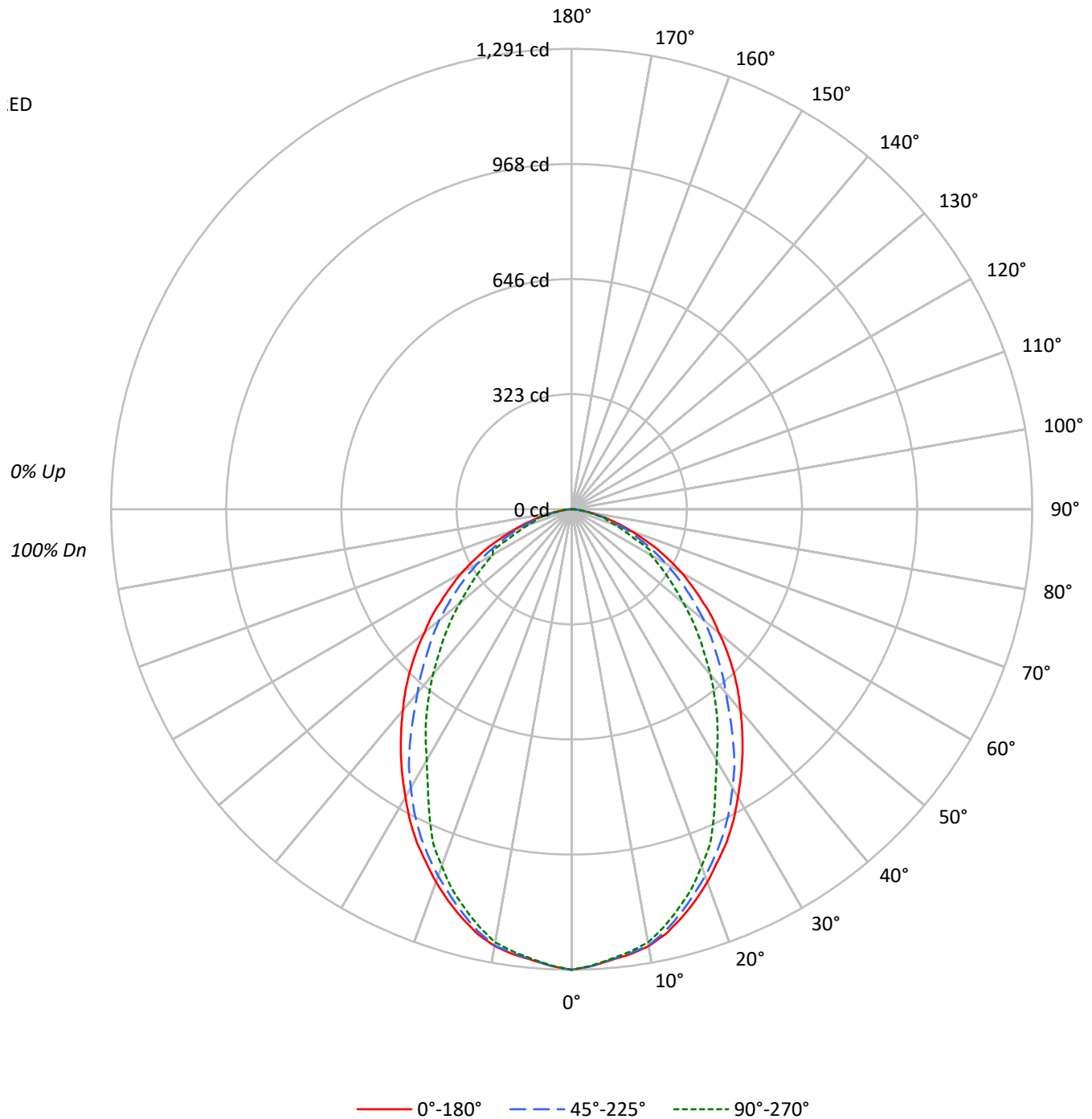
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6950	6950	6950
5°	6855	6847	6839
10°	6796	6788	6739
15°	6613	6546	6454
20°	6370	6267	6096
25°	6108	5975	5603
30°	5789	5604	5047
35°	5483	5179	4669
40°	5171	4720	4248
45°	4874	4363	3841
50°	4512	4050	3424
55°	4175	3670	3067
60°	3824	3278	2748
65°	3365	2870	2434
70°	2773	2513	2068
75°	2204	1926	2017
80°	1481	1389	1296
85°	920	1105	1291

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4874 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.2	4.7
10°-20°	329.9	13.0
20°-30°	456.7	18.0
30°-40°	487.0	19.2
40°-50°	444.3	17.5
50°-60°	348.0	13.7
60°-70°	226.8	8.9
70°-80°	100.5	4.0
80°-90°	21.6	0.9
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°	906.8	35.8
0°-40°	1393.8	55.0
0°-60°	2186.1	86.2
0°-90°	2535.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2535.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1269	1267	1267	1266	1266	120
15°	1187	1187	1175	1163	1158	334
25°	1029	1023	1006	970	944	472
35°	834	828	788	728	711	522
45°	640	627	573	526	505	493
55°	445	431	391	345	327	399
65°	264	249	225	230	191	260
75°	106	98	93	88	97	114
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1291.3	1291.3	1291.3	1291.3	1291.3
2.5°	1282.3	1282.3	1282.3	1280.8	1280.8
5°	1268.9	1267.4	1267.4	1265.9	1265.9
7.5°	1258.5	1257.0	1255.5	1254.0	1251.0
10°	1243.5	1243.5	1242.0	1234.6	1233.1
12.5°	1219.6	1218.1	1212.2	1201.7	1198.7
15°	1186.8	1186.8	1174.9	1162.9	1158.4
17.5°	1151.0	1149.5	1134.5	1122.6	1116.6
20°	1112.2	1109.2	1094.2	1074.8	1064.4
22.5°	1068.9	1068.9	1051.0	1025.6	1015.1
25°	1028.6	1022.6	1006.2	970.3	943.5
27.5°	982.3	973.3	955.4	904.7	873.3
30°	931.5	927.0	901.7	836.0	812.1
32.5°	883.8	876.3	849.4	780.7	761.3
35°	834.5	828.5	788.2	728.5	710.6
37.5°	785.2	777.8	727.0	679.2	656.8
40°	736.0	727.0	671.8	628.5	604.6
42.5°	689.7	677.7	624.0	577.7	550.9
45°	640.4	627.0	573.2	525.5	504.6
47.5°	591.2	579.2	530.0	480.7	456.8
50°	538.9	528.5	483.7	434.4	409.0
52.5°	495.6	479.2	435.9	386.6	365.7
55°	444.9	431.4	391.1	344.8	326.9
57.5°	398.6	385.1	347.8	304.5	289.6
60°	355.3	335.9	304.5	267.2	255.3
62.5°	307.5	292.6	265.7	234.4	249.3
65°	264.2	249.3	225.4	229.9	191.1
67.5°	216.5	209.0	188.1	167.2	161.2
70°	176.2	167.2	159.7	137.3	131.4
72.5°	140.3	131.4	120.9	109.0	104.5
75°	106.0	98.5	92.6	88.1	97.0
77.5°	73.1	70.2	65.7	61.2	59.7
80°	47.8	46.3	44.8	43.3	41.8
82.5°	28.4	28.4	28.4	28.4	28.4
85°	14.9	16.4	17.9	19.4	20.9
87.5°	9.0	9.0	10.4	11.9	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)