

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: P560748

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560748
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2708.0 lumens
Efficiency: N/A
Efficacy: 81.3 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

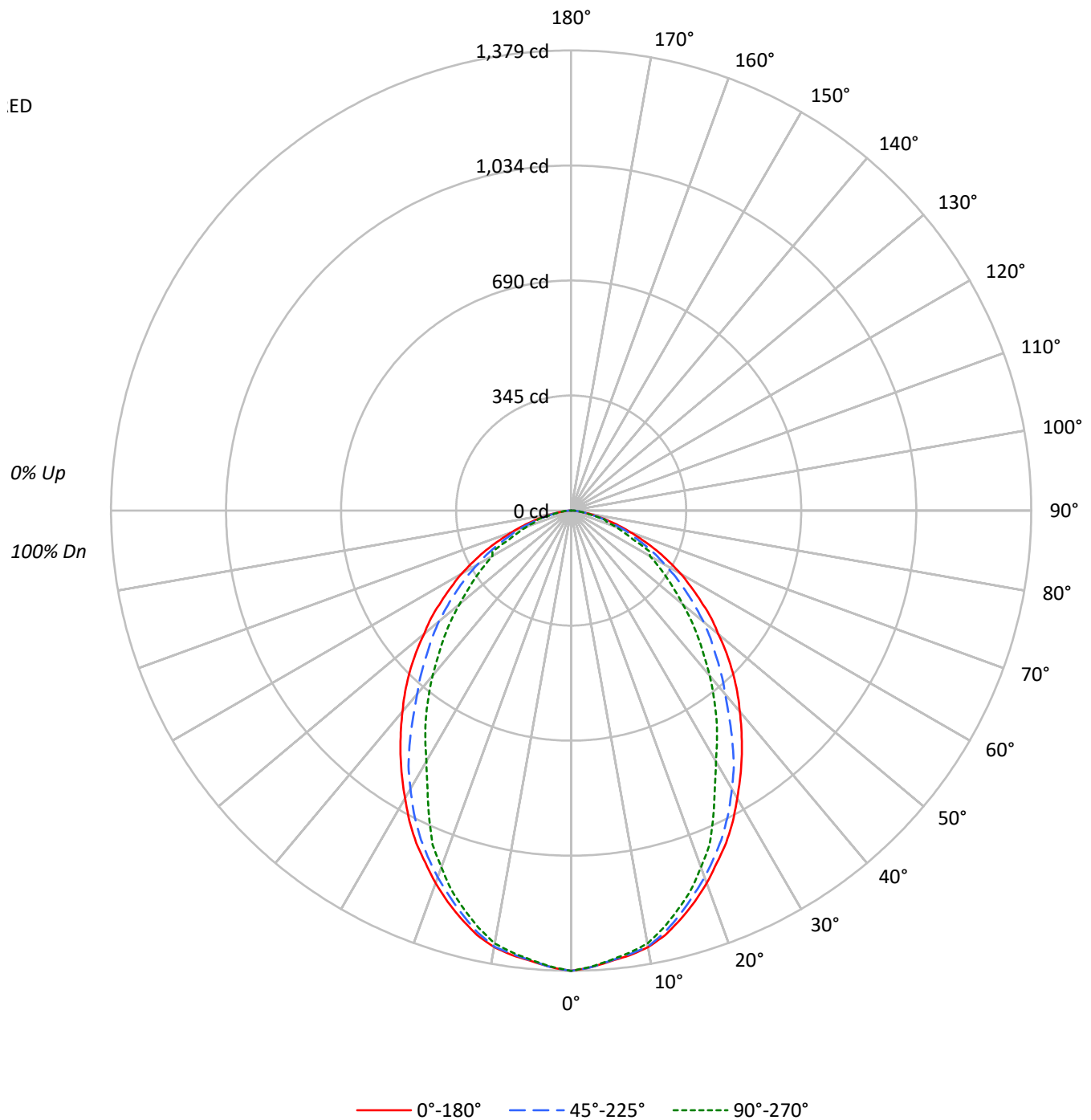
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7424	7424	7424
5°	7323	7314	7306
10°	7260	7251	7198
15°	7064	6993	6895
20°	6805	6695	6512
25°	6525	6383	5985
30°	6184	5986	5391
35°	5857	5532	4987
40°	5524	5042	4538
45°	5207	4661	4102
50°	4820	4326	3658
55°	4459	3920	3277
60°	4085	3502	2935
65°	3595	3067	2599
70°	2961	2685	2208
75°	2354	2057	2156
80°	1581	1481	1385
85°	982	1179	1377

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5207 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	4.7
10°-20°	352.4	13.0
20°-30°	487.9	18.0
30°-40°	520.2	19.2
40°-50°	474.6	17.5
50°-60°	371.8	13.7
60°-70°	242.3	8.9
70°-80°	107.4	4.0
80°-90°	23.0	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°	968.7	35.8
0°-40°	1488.9	55.0
0°-60°	2335.3	86.2
0°-90°	2708.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1379	1379	1379	1379	1379	
5°	1356	1354	1354	1352	1352	129
15°	1268	1268	1255	1242	1238	356
25°	1099	1092	1075	1037	1008	504
35°	891	885	842	778	759	557
45°	684	670	612	561	539	527
55°	475	461	418	368	349	426
65°	282	266	241	246	204	278
75°	113	105	99	94	104	121
85°	16	18	19	21	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1379.4	1379.4	1379.4	1379.4	1379.4
2.5°	1369.9	1369.9	1369.9	1368.3	1368.3
5°	1355.5	1353.9	1353.9	1352.3	1352.3
7.5°	1344.3	1342.7	1341.1	1339.6	1336.4
10°	1328.4	1328.4	1326.8	1318.8	1317.2
12.5°	1302.9	1301.3	1294.9	1283.7	1280.5
15°	1267.8	1267.8	1255.0	1242.3	1237.5
17.5°	1229.5	1227.9	1212.0	1199.2	1192.8
20°	1188.1	1184.9	1168.9	1148.2	1137.0
22.5°	1141.8	1141.8	1122.7	1095.6	1084.4
25°	1098.8	1092.4	1074.8	1036.6	1007.9
27.5°	1049.3	1039.7	1020.6	966.4	932.9
30°	995.1	990.3	963.2	893.0	867.5
32.5°	944.1	936.1	907.4	834.0	813.3
35°	891.4	885.1	842.0	778.2	759.1
37.5°	838.8	830.8	776.6	725.6	701.7
40°	786.2	776.6	717.6	671.4	645.9
42.5°	736.8	724.0	666.6	617.2	588.4
45°	684.1	669.8	612.4	561.3	539.0
47.5°	631.5	618.7	566.1	513.5	488.0
50°	575.7	564.5	516.7	464.1	436.9
52.5°	529.4	511.9	465.7	413.0	390.7
55°	475.2	460.9	417.8	368.4	349.2
57.5°	425.8	411.4	371.6	325.3	309.4
60°	379.5	358.8	325.3	285.5	272.7
62.5°	328.5	312.6	283.9	250.4	266.3
65°	282.3	266.3	240.8	245.6	204.1
67.5°	231.2	223.3	200.9	178.6	172.2
70°	188.2	178.6	170.6	146.7	140.3
72.5°	149.9	140.3	129.2	116.4	111.6
75°	113.2	105.3	98.9	94.1	103.7
77.5°	78.1	75.0	70.2	65.4	63.8
80°	51.0	49.4	47.8	46.2	44.7
82.5°	30.3	30.3	30.3	30.3	30.3
85°	15.9	17.5	19.1	20.7	22.3
87.5°	9.6	9.6	11.2	12.8	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)