

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: P559474

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559474
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-12-1-LD4-2STD-40-UNV-80-85-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1309.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

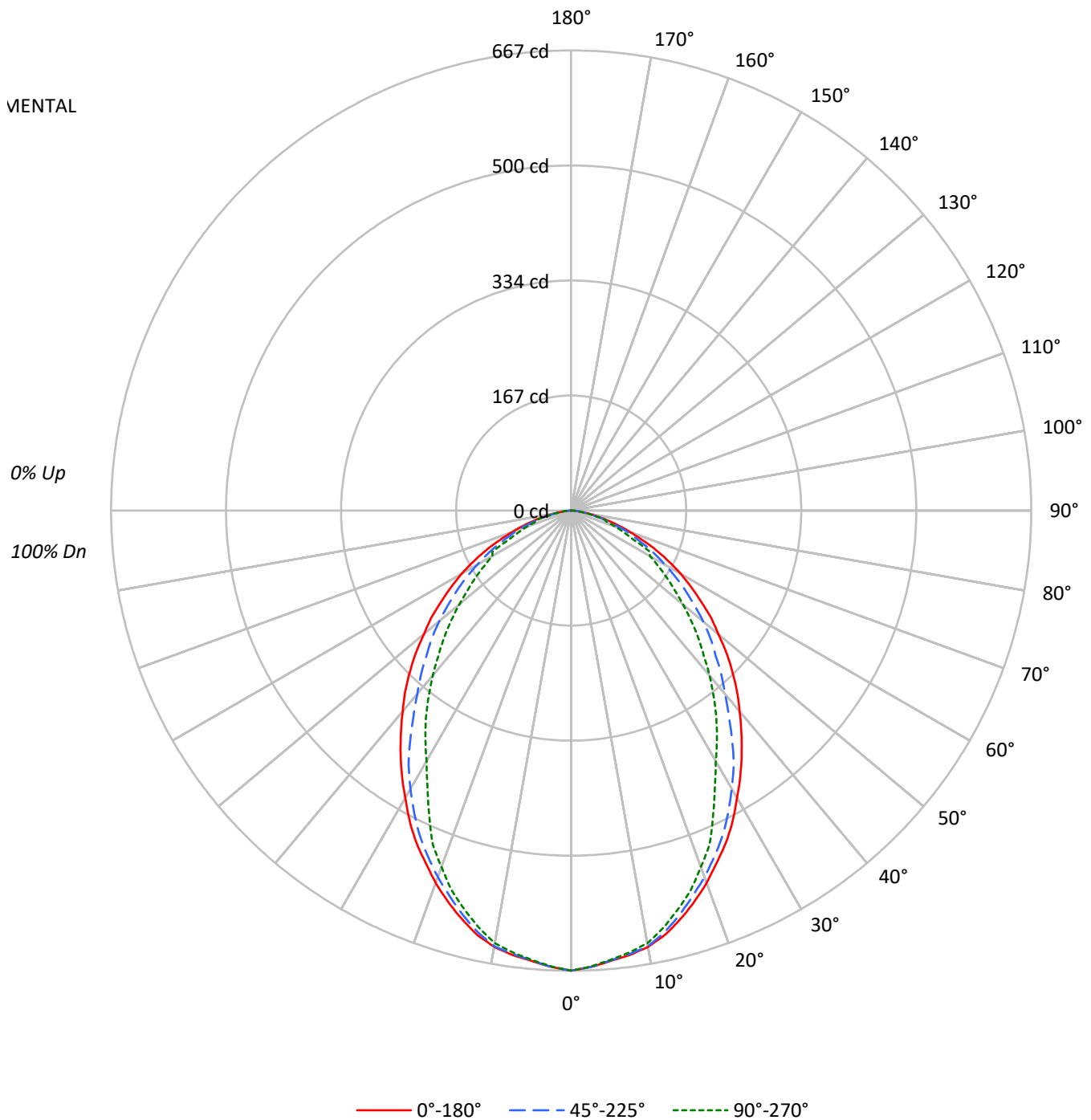
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7177	7177	7177
5°	7079	7072	7063
10°	7018	7009	6959
15°	6829	6761	6666
20°	6578	6472	6296
25°	6308	6171	5786
30°	5978	5787	5212
35°	5662	5348	4821
40°	5339	4874	4387
45°	5034	4506	3965
50°	4660	4183	3537
55°	4311	3791	3168
60°	3950	3386	2837
65°	3474	2965	2514
70°	2864	2596	2134
75°	2275	1988	2084
80°	1531	1432	1339
85°	951	1149	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5034 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.1	4.7
10°-20°	170.3	13.0
20°-30°	235.8	18.0
30°-40°	251.5	19.2
40°-50°	229.4	17.5
50°-60°	179.7	13.7
60°-70°	117.1	8.9
70°-80°	51.9	4.0
80°-90°	11.1	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°	468.2	35.8
0°-40°	719.7	55.0
0°-60°	1128.8	86.2
0°-90°	1309.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1309.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	655	654	654	654	654	62
15°	613	613	607	600	598	172
25°	531	528	520	501	487	244
35°	431	428	407	376	367	269
45°	331	324	296	271	260	255
55°	230	223	202	178	169	206
65°	136	129	116	119	99	134
75°	55	51	48	46	50	59
85°	8	8	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.8	666.8	666.8	666.8	666.8
2.5°	662.2	662.2	662.2	661.4	661.4
5°	655.2	654.5	654.5	653.7	653.7
7.5°	649.8	649.1	648.3	647.5	646.0
10°	642.1	642.1	641.3	637.5	636.7
12.5°	629.8	629.0	625.9	620.5	619.0
15°	612.8	612.8	606.7	600.5	598.2
17.5°	594.3	593.6	585.8	579.7	576.6
20°	574.3	572.7	565.0	555.0	549.6
22.5°	551.9	551.9	542.7	529.6	524.2
25°	531.1	528.0	519.6	501.1	487.2
27.5°	507.2	502.6	493.3	467.1	450.9
30°	481.0	478.7	465.6	431.7	419.3
32.5°	456.3	452.5	438.6	403.2	393.1
35°	430.9	427.8	407.0	376.2	366.9
37.5°	405.5	401.6	375.4	350.7	339.2
40°	380.0	375.4	346.9	324.5	312.2
42.5°	356.1	350.0	322.2	298.3	284.4
45°	330.7	323.8	296.0	271.3	260.5
47.5°	305.3	299.1	273.7	248.2	235.9
50°	278.3	272.9	249.8	224.3	211.2
52.5°	255.9	247.4	225.1	199.7	188.9
55°	229.7	222.8	202.0	178.1	168.8
57.5°	205.8	198.9	179.6	157.3	149.5
60°	183.5	173.4	157.3	138.0	131.8
62.5°	158.8	151.1	137.2	121.0	128.7
65°	136.4	128.7	116.4	118.7	98.7
67.5°	111.8	107.9	97.1	86.3	83.3
70°	91.0	86.3	82.5	70.9	67.8
72.5°	72.5	67.8	62.4	56.3	54.0
75°	54.7	50.9	47.8	45.5	50.1
77.5°	37.8	36.2	33.9	31.6	30.8
80°	24.7	23.9	23.1	22.4	21.6
82.5°	14.6	14.6	14.6	14.6	14.6
85°	7.7	8.5	9.3	10.0	10.8
87.5°	4.6	4.6	5.4	6.2	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)