

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: P559426

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-81-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559426
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-35-UNV-81-85-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1226.0 lumens
Efficiency: N/A
Efficacy: 73.9 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

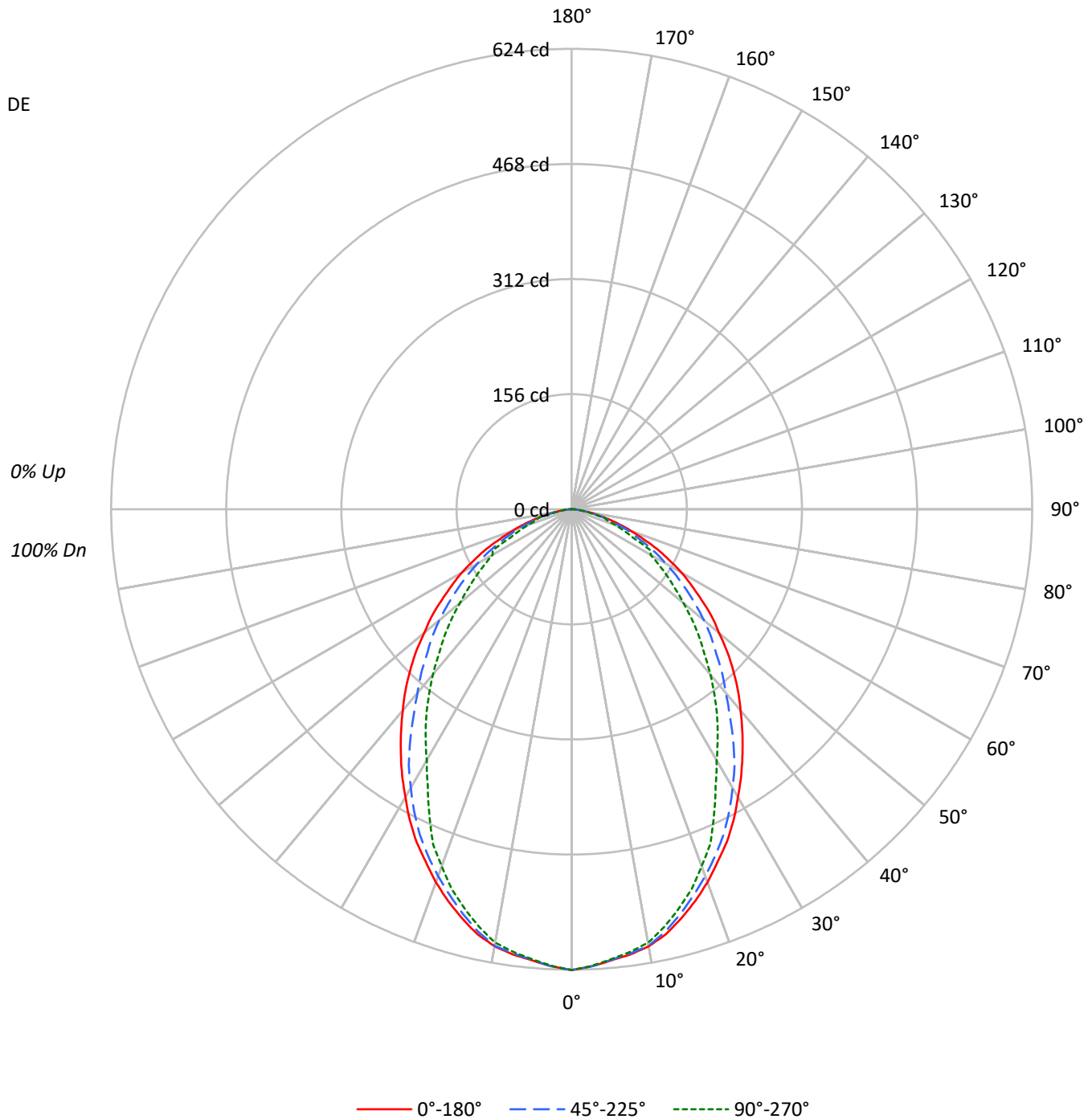
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	6722	6722	6722
5°	6631	6623	6615
10°	6573	6566	6519
15°	6396	6332	6244
20°	6161	6062	5897
25°	5907	5779	5419
30°	5599	5420	4882
35°	5303	5009	4516
40°	5001	4565	4109
45°	4714	4220	3714
50°	4364	3917	3312
55°	4037	3551	2967
60°	3698	3171	2659
65°	3255	2776	2353
70°	2681	2433	1998
75°	2133	1863	1951
80°	1432	1345	1252
85°	889	1074	1247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4714 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	4.7
10°-20°	159.5	13.0
20°-30°	220.9	18.0
30°-40°	235.5	19.2
40°-50°	214.9	17.5
50°-60°	168.3	13.7
60°-70°	109.7	8.9
70°-80°	48.6	4.0
80°-90°	10.4	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°	438.6	35.8
0°-40°	674.1	55.0
0°-60°	1057.3	86.2
0°-90°	1226.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1226.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	624	624	624	624	624	
5°	614	613	613	612	612	58
15°	574	574	568	562	560	161
25°	497	495	487	469	456	228
35°	404	401	381	352	344	252
45°	310	303	277	254	244	239
55°	215	209	189	167	158	193
65°	128	121	109	111	92	126
75°	51	48	45	43	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	624.5	624.5	624.5	624.5	624.5
2.5°	620.2	620.2	620.2	619.5	619.5
5°	613.7	613.0	613.0	612.2	612.2
7.5°	608.6	607.9	607.2	606.5	605.0
10°	601.4	601.4	600.7	597.1	596.4
12.5°	589.9	589.1	586.2	581.2	579.7
15°	574.0	574.0	568.2	562.4	560.3
17.5°	556.6	555.9	548.7	542.9	540.0
20°	537.9	536.4	529.2	519.8	514.8
22.5°	516.9	516.9	508.3	496.0	490.9
25°	497.4	494.6	486.6	469.3	456.3
27.5°	475.1	470.7	462.1	437.5	422.4
30°	450.5	448.3	436.1	404.3	392.8
32.5°	427.4	423.8	410.8	377.6	368.2
35°	403.6	400.7	381.2	352.3	343.7
37.5°	379.8	376.1	351.6	328.5	317.7
40°	355.9	351.6	324.9	304.0	292.4
42.5°	333.6	327.8	301.8	279.4	266.4
45°	309.7	303.2	277.2	254.1	244.0
47.5°	285.9	280.1	256.3	232.5	220.9
50°	260.6	255.6	233.9	210.1	197.8
52.5°	239.7	231.8	210.8	187.0	176.9
55°	215.1	208.7	189.2	166.8	158.1
57.5°	192.8	186.3	168.2	147.3	140.1
60°	171.8	162.4	147.3	129.2	123.5
62.5°	148.7	141.5	128.5	113.4	120.6
65°	127.8	120.6	109.0	111.2	92.4
67.5°	104.7	101.1	91.0	80.9	78.0
70°	85.2	80.9	77.3	66.4	63.5
72.5°	67.9	63.5	58.5	52.7	50.5
75°	51.3	47.7	44.8	42.6	46.9
77.5°	35.4	33.9	31.8	29.6	28.9
80°	23.1	22.4	21.7	20.9	20.2
82.5°	13.7	13.7	13.7	13.7	13.7
85°	7.2	7.9	8.7	9.4	10.1
87.5°	4.3	4.3	5.1	5.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)