

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: P559506

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559506
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-82-85-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1217.0 lumens
Efficiency: N/A
Efficacy: 73.3 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

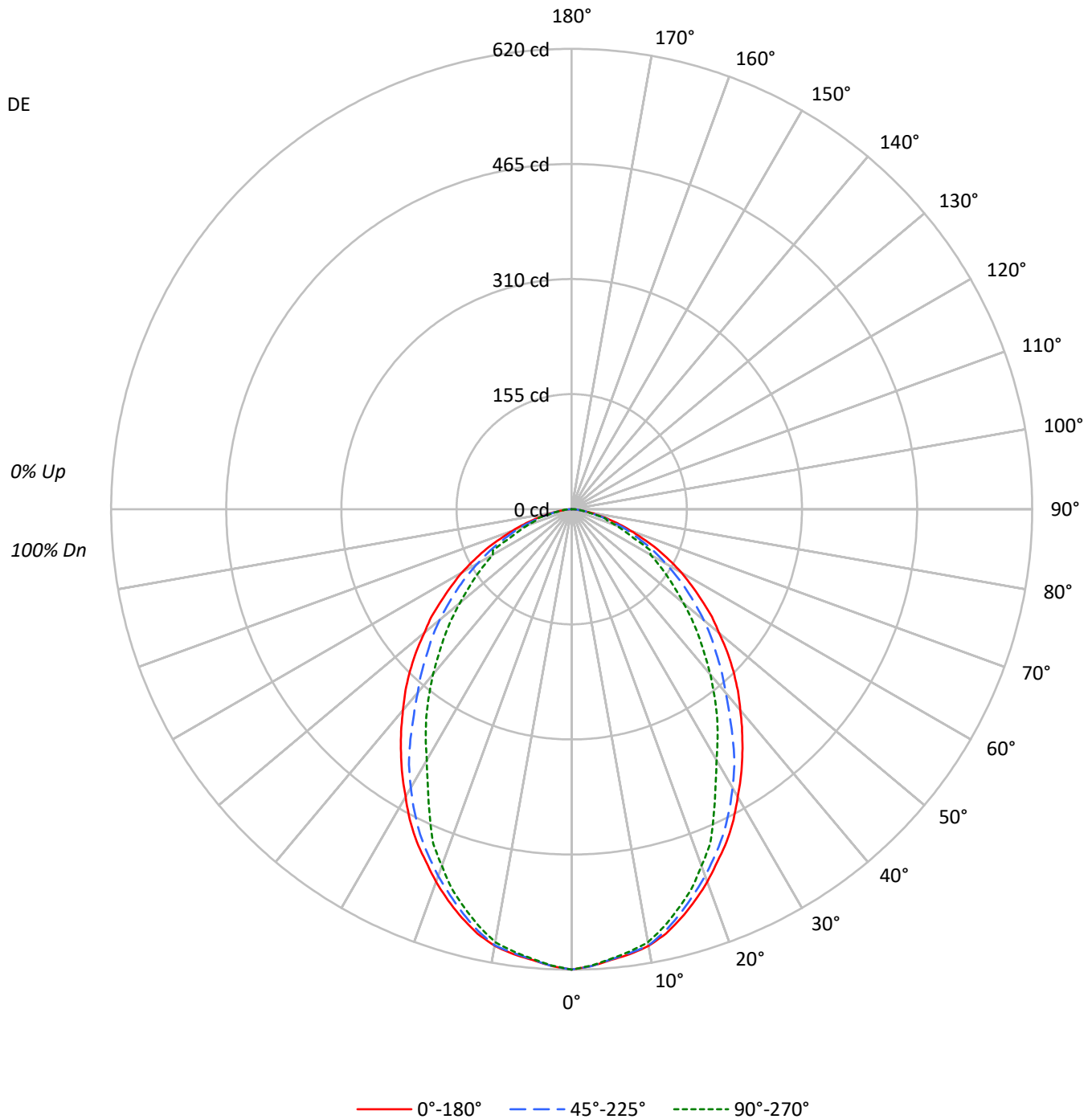
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6673	6673	6673
5°	6582	6575	6566
10°	6525	6518	6471
15°	6350	6285	6197
20°	6116	6017	5853
25°	5865	5736	5379
30°	5558	5381	4846
35°	5264	4972	4482
40°	4964	4532	4079
45°	4681	4189	3687
50°	4332	3888	3289
55°	4008	3524	2946
60°	3673	3147	2639
65°	3232	2756	2336
70°	2662	2414	1986
75°	2117	1847	1938
80°	1420	1333	1246
85°	889	1062	1235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4681 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.7	4.7
10°-20°	158.4	13.0
20°-30°	219.3	18.0
30°-40°	233.8	19.2
40°-50°	213.3	17.5
50°-60°	167.1	13.7
60°-70°	108.9	8.9
70°-80°	48.3	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°	435.3	35.8
0°-40°	669.1	55.0
0°-60°	1049.5	86.2
0°-90°	1217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1217.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	609	608	608	608	608	58
15°	570	570	564	558	556	160
25°	494	491	483	466	453	227
35°	401	398	378	350	341	250
45°	308	301	275	252	242	237
55°	214	207	188	166	157	192
65°	127	120	108	110	92	125
75°	51	47	44	42	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°	619.9	619.9	619.9	619.9	619.9
2.5°	615.6	615.6	615.6	614.9	614.9
5°	609.2	608.5	608.5	607.7	607.7
7.5°	604.2	603.4	602.7	602.0	600.6
10°	597.0	597.0	596.3	592.7	592.0
12.5°	585.5	584.8	581.9	576.9	575.5
15°	569.8	569.8	564.0	558.3	556.1
17.5°	552.6	551.8	544.7	538.9	536.1
20°	533.9	532.5	525.3	516.0	511.0
22.5°	513.1	513.1	504.5	492.4	487.3
25°	493.8	490.9	483.0	465.8	452.9
27.5°	471.6	467.3	458.7	434.3	419.3
30°	447.2	445.1	432.9	401.3	389.9
32.5°	424.3	420.7	407.8	374.8	365.5
35°	400.6	397.8	378.4	349.7	341.1
37.5°	377.0	373.4	349.0	326.1	315.3
40°	353.3	349.0	322.5	301.7	290.3
42.5°	331.1	325.4	299.6	277.4	264.5
45°	307.5	301.0	275.2	252.3	242.2
47.5°	283.8	278.1	254.4	230.8	219.3
50°	258.7	253.7	232.2	208.6	196.4
52.5°	237.9	230.1	209.3	185.6	175.6
55°	213.6	207.1	187.8	165.6	157.0
57.5°	191.4	184.9	167.0	146.2	139.0
60°	170.6	161.3	146.2	128.3	122.6
62.5°	147.6	140.5	127.6	112.5	119.7
65°	126.9	119.7	108.2	110.4	91.7
67.5°	103.9	100.3	90.3	80.3	77.4
70°	84.6	80.3	76.7	65.9	63.1
72.5°	67.4	63.1	58.1	52.3	50.2
75°	50.9	47.3	44.4	42.3	46.6
77.5°	35.1	33.7	31.5	29.4	28.7
80°	22.9	22.2	21.5	20.8	20.1
82.5°	13.6	13.6	13.6	13.6	13.6
85°	7.2	7.9	8.6	9.3	10.0
87.5°	4.3	4.3	5.0	5.7	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)