

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: P559092

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559092
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-LD4-2HI-40-UNV-80-86-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1587.0 lumens
Efficiency: N/A
Efficacy: 73.5 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

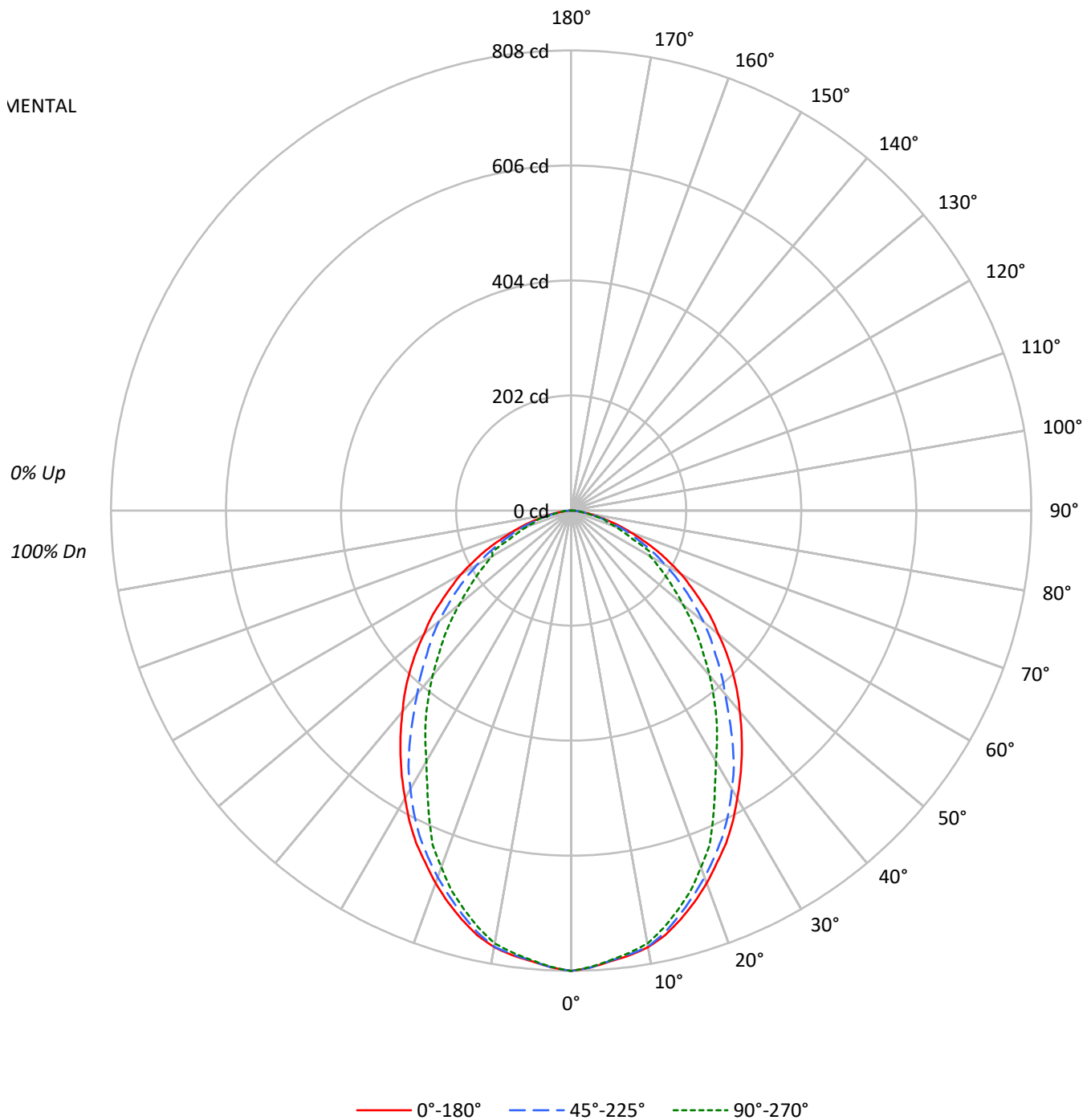
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8702	8702	8702
5°	8584	8573	8563
10°	8509	8499	8437
15°	8280	8196	8081
20°	7975	7846	7632
25°	7647	7481	7014
30°	7249	7016	6319
35°	6865	6483	5846
40°	6473	5910	5318
45°	6103	5463	4809
50°	5650	5071	4289
55°	5226	4596	3841
60°	4788	4105	3440
65°	4213	3594	3046
70°	3471	3147	2587
75°	2761	2408	2524
80°	1853	1736	1624
85°	1149	1383	1618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6103 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	4.7
10°-20°	206.5	13.0
20°-30°	285.9	18.0
30°-40°	304.9	19.2
40°-50°	278.1	17.5
50°-60°	217.9	13.7
60°-70°	142.0	8.9
70°-80°	62.9	4.0
80°-90°	13.5	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°	567.7	35.8
0°-40°	872.5	55.0
0°-60°	1368.6	86.2
0°-90°	1587.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1587.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	794	793	793	792	792	75
15°	743	743	736	728	725	209
25°	644	640	630	608	591	296
35°	522	519	493	456	445	327
45°	401	392	359	329	316	309
55°	278	270	245	216	205	250
65°	165	156	141	144	120	163
75°	66	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.4	808.4	808.4	808.4	808.4
2.5°	802.8	802.8	802.8	801.9	801.9
5°	794.4	793.4	793.4	792.5	792.5
7.5°	787.8	786.9	786.0	785.0	783.2
10°	778.5	778.5	777.6	772.9	771.9
12.5°	763.5	762.6	758.9	752.3	750.5
15°	743.0	743.0	735.5	728.0	725.2
17.5°	720.5	719.6	710.3	702.8	699.1
20°	696.2	694.4	685.0	672.9	666.3
22.5°	669.1	669.1	657.9	642.0	635.5
25°	643.9	640.2	629.9	607.5	590.6
27.5°	614.9	609.3	598.1	566.3	546.7
30°	583.2	580.4	564.5	523.4	508.4
32.5°	553.3	548.6	531.8	488.8	476.6
35°	522.4	518.7	493.4	456.1	444.9
37.5°	491.6	486.9	455.1	425.2	411.2
40°	460.7	455.1	420.6	393.5	378.5
42.5°	431.8	424.3	390.6	361.7	344.9
45°	400.9	392.5	358.9	329.0	315.9
47.5°	370.1	362.6	331.8	300.9	286.0
50°	337.4	330.8	302.8	272.0	256.1
52.5°	310.3	300.0	272.9	242.1	229.0
55°	278.5	270.1	244.9	215.9	204.7
57.5°	249.5	241.1	217.8	190.7	181.3
60°	222.4	210.3	190.7	167.3	159.8
62.5°	192.5	183.2	166.4	146.7	156.1
65°	165.4	156.1	141.1	143.9	119.6
67.5°	135.5	130.8	117.8	104.7	100.9
70°	110.3	104.7	100.0	86.0	82.2
72.5°	87.8	82.2	75.7	68.2	65.4
75°	66.4	61.7	57.9	55.1	60.7
77.5°	45.8	43.9	41.1	38.3	37.4
80°	29.9	29.0	28.0	27.1	26.2
82.5°	17.8	17.8	17.8	17.8	17.8
85°	9.3	10.3	11.2	12.1	13.1
87.5°	5.6	5.6	6.5	7.5	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)