

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: P559158

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559158
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-50-UNV-80-87-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1617.0 lumens
Efficiency: N/A
Efficacy: 74.9 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

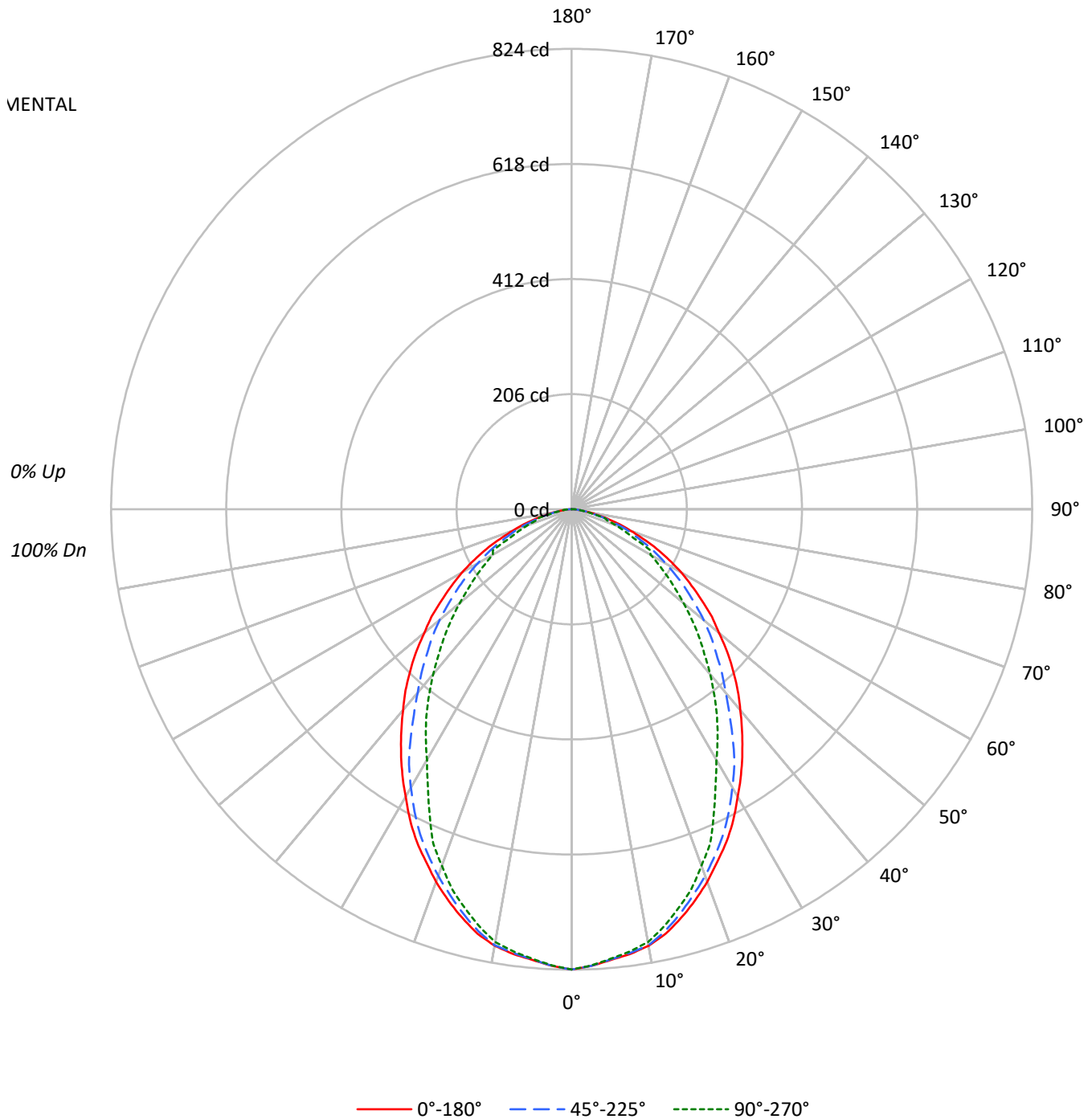
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8866	8866	8866
5°	8746	8735	8725
10°	8670	8660	8596
15°	8436	8351	8234
20°	8126	7995	7777
25°	7792	7622	7147
30°	7385	7148	6438
35°	6995	6607	5957
40°	6596	6021	5420
45°	6218	5567	4900
50°	5757	5166	4369
55°	5326	4682	3913
60°	4878	4183	3505
65°	4292	3663	3105
70°	3537	3207	2637
75°	2811	2454	2574
80°	1891	1773	1655
85°	1173	1408	1643

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6218 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	4.7
10°-20°	210.4	13.0
20°-30°	291.3	18.0
30°-40°	310.6	19.2
40°-50°	283.4	17.5
50°-60°	222.0	13.7
60°-70°	144.7	8.9
70°-80°	64.1	4.0
80°-90°	13.8	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°	578.4	35.8
0°-40°	889.0	55.0
0°-60°	1394.4	86.2
0°-90°	1617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1617.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	809	808	808	808	808	77
15°	757	757	749	742	739	213
25°	656	652	642	619	602	301
35°	532	528	503	465	453	333
45°	408	400	366	335	322	315
55°	284	275	250	220	208	255
65°	168	159	144	147	122	166
75°	68	63	59	56	62	72
85°	10	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°	823.7	823.7	823.7	823.7	823.7
2.5°	818.0	818.0	818.0	817.0	817.0
5°	809.4	808.4	808.4	807.5	807.5
7.5°	802.7	801.8	800.8	799.9	798.0
10°	793.2	793.2	792.3	787.5	786.5
12.5°	778.0	777.0	773.2	766.5	764.6
15°	757.0	757.0	749.4	741.8	738.9
17.5°	734.2	733.2	723.7	716.1	712.3
20°	709.4	707.5	698.0	685.6	678.9
22.5°	681.8	681.8	670.4	654.2	647.5
25°	656.1	652.3	641.8	618.9	601.8
27.5°	626.6	620.9	609.4	577.1	557.1
30°	594.2	591.3	575.1	533.2	518.0
32.5°	563.7	559.0	541.8	498.0	485.6
35°	532.3	528.5	502.8	464.7	453.3
37.5°	500.9	496.1	463.7	433.3	419.0
40°	469.4	463.7	428.5	400.9	385.7
42.5°	439.9	432.3	398.0	368.5	351.4
45°	408.5	399.9	365.7	335.2	321.9
47.5°	377.1	369.5	338.0	306.6	291.4
50°	343.8	337.1	308.5	277.1	260.9
52.5°	316.1	305.7	278.1	246.6	233.3
55°	283.8	275.2	249.5	220.0	208.5
57.5°	254.2	245.7	221.9	194.3	184.7
60°	226.6	214.3	194.3	170.4	162.8
62.5°	196.2	186.6	169.5	149.5	159.0
65°	168.5	159.0	143.8	146.6	121.9
67.5°	138.1	133.3	120.0	106.6	102.8
70°	112.4	106.6	101.9	87.6	83.8
72.5°	89.5	83.8	77.1	69.5	66.7
75°	67.6	62.8	59.0	56.2	61.9
77.5°	46.7	44.8	41.9	39.0	38.1
80°	30.5	29.5	28.6	27.6	26.7
82.5°	18.1	18.1	18.1	18.1	18.1
85°	9.5	10.5	11.4	12.4	13.3
87.5°	5.7	5.7	6.7	7.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)