

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: P559028

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559028
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-35-UNV-80-86-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1565.0 lumens
Efficiency: N/A
Efficacy: 72.5 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

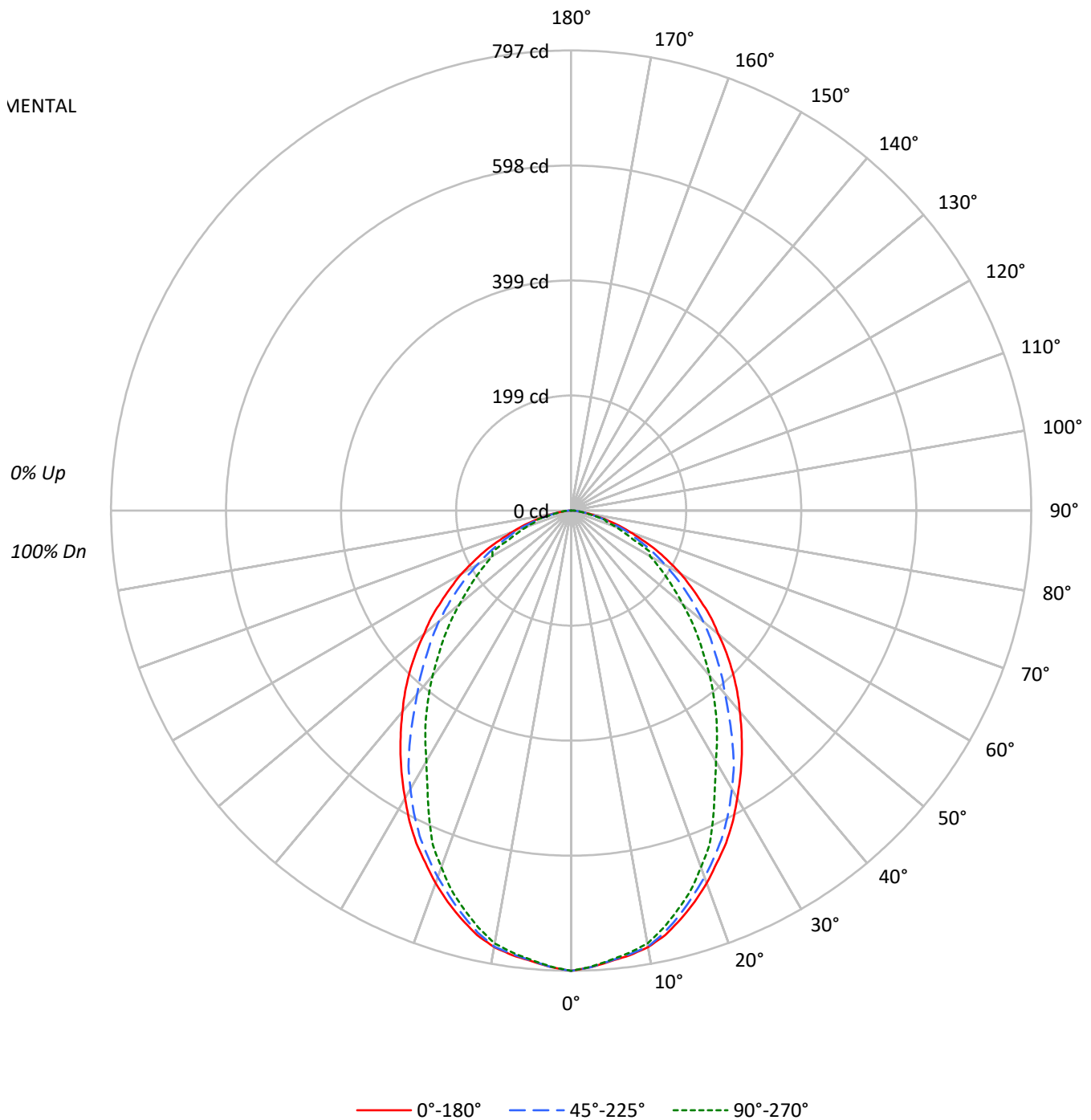
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8581	8581	8581
5°	8465	8454	8444
10°	8391	8381	8320
15°	8165	8082	7970
20°	7865	7738	7527
25°	7542	7378	6918
30°	7148	6919	6232
35°	6770	6394	5765
40°	6385	5827	5245
45°	6019	5387	4742
50°	5571	5000	4228
55°	5153	4532	3787
60°	4721	4047	3393
65°	4154	3545	3005
70°	3421	3103	2552
75°	2720	2375	2491
80°	1829	1711	1599
85°	1136	1371	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6019 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	4.7
10°-20°	203.7	13.0
20°-30°	281.9	18.0
30°-40°	300.6	19.2
40°-50°	274.3	17.5
50°-60°	214.9	13.7
60°-70°	140.0	8.9
70°-80°	62.0	4.0
80°-90°	13.3	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°	559.8	35.8
0°-40°	860.5	55.0
0°-60°	1349.6	86.2
0°-90°	1565.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1565.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	783	782	782	782	782	74
15°	733	733	725	718	715	206
25°	635	631	621	599	582	292
35°	515	512	487	450	439	322
45°	395	387	354	324	312	305
55°	275	266	242	213	202	246
65°	163	154	139	142	118	161
75°	65	61	57	54	60	70
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°	797.2	797.2	797.2	797.2	797.2
2.5°	791.7	791.7	791.7	790.7	790.7
5°	783.4	782.4	782.4	781.5	781.5
7.5°	776.9	776.0	775.1	774.1	772.3
10°	767.7	767.7	766.8	762.2	761.2
12.5°	753.0	752.0	748.3	741.9	740.1
15°	732.7	732.7	725.3	717.9	715.2
17.5°	710.6	709.6	700.4	693.0	689.4
20°	686.6	684.8	675.5	663.6	657.1
22.5°	659.9	659.9	648.8	633.1	626.7
25°	635.0	631.3	621.2	599.0	582.5
27.5°	606.4	600.9	589.8	558.5	539.1
30°	575.1	572.3	556.7	516.1	501.4
32.5°	545.6	541.0	524.4	482.0	470.0
35°	515.2	511.5	486.6	449.7	438.7
37.5°	484.8	480.2	448.8	419.3	405.5
40°	454.4	448.8	414.7	388.0	373.3
42.5°	425.8	418.4	385.2	356.7	340.1
45°	395.4	387.1	353.9	324.4	311.5
47.5°	365.0	357.6	327.2	296.8	282.0
50°	332.7	326.2	298.6	268.2	252.5
52.5°	306.0	295.8	269.1	238.7	225.8
55°	274.6	266.3	241.5	212.9	201.8
57.5°	246.1	237.8	214.7	188.0	178.8
60°	219.3	207.4	188.0	165.0	157.6
62.5°	189.9	180.6	164.0	144.7	153.9
65°	163.1	153.9	139.2	141.9	118.0
67.5°	133.6	129.0	116.1	103.2	99.5
70°	108.7	103.2	98.6	84.8	81.1
72.5°	86.6	81.1	74.7	67.3	64.5
75°	65.4	60.8	57.1	54.4	59.9
77.5°	45.2	43.3	40.6	37.8	36.9
80°	29.5	28.6	27.6	26.7	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.1	11.1	12.0	12.9
87.5°	5.5	5.5	6.5	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)