

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: P559024

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559024
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-80-84-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1615.0 lumens
Efficiency: N/A
Efficacy: 74.8 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

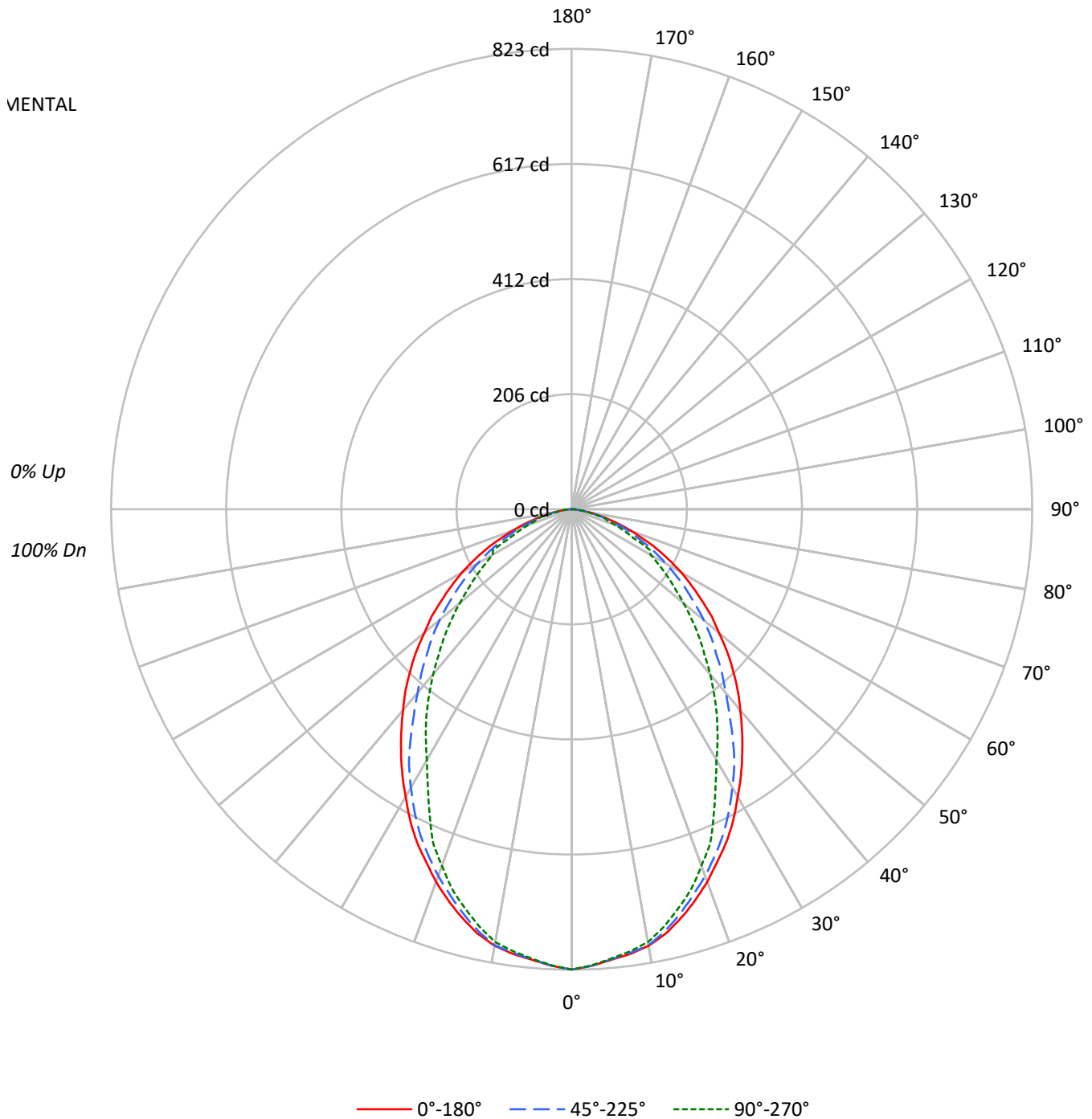
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8855	8855	8855
5°	8735	8724	8714
10°	8659	8649	8587
15°	8426	8341	8224
20°	8116	7985	7767
25°	7783	7613	7139
30°	7377	7139	6431
35°	6985	6599	5949
40°	6589	6014	5413
45°	6211	5559	4894
50°	5749	5159	4364
55°	5318	4677	3909
60°	4874	4176	3500
65°	4287	3657	3100
70°	3531	3204	2634
75°	2807	2454	2570
80°	1884	1767	1649
85°	1173	1408	1643

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6211 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	4.7
10°-20°	210.2	13.0
20°-30°	291.0	18.0
30°-40°	310.2	19.2
40°-50°	283.0	17.5
50°-60°	221.7	13.7
60°-70°	144.5	8.9
70°-80°	64.0	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°	577.7	35.8
0°-40°	888.0	55.0
0°-60°	1392.7	86.2
0°-90°	1615.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1615.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	808	807	807	806	806	77
15°	756	756	748	741	738	213
25°	655	652	641	618	601	301
35°	532	528	502	464	453	332
45°	408	399	365	335	322	314
55°	283	275	249	220	208	254
65°	168	159	144	146	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°	822.7	822.7	822.7	822.7	822.7
2.5°	817.0	817.0	817.0	816.0	816.0
5°	808.4	807.4	807.4	806.5	806.5
7.5°	801.7	800.8	799.8	798.9	797.0
10°	792.2	792.2	791.3	786.5	785.6
12.5°	777.0	776.1	772.3	765.6	763.7
15°	756.1	756.1	748.5	740.9	738.0
17.5°	733.3	732.3	722.8	715.2	711.4
20°	708.5	706.6	697.1	684.8	678.1
22.5°	681.0	681.0	669.5	653.4	646.7
25°	655.3	651.5	641.0	618.2	601.1
27.5°	625.8	620.1	608.7	576.3	556.4
30°	593.5	590.6	574.4	532.6	517.4
32.5°	563.0	558.3	541.1	497.4	485.0
35°	531.6	527.8	502.2	464.1	452.7
37.5°	500.3	495.5	463.2	432.7	418.5
40°	468.9	463.2	428.0	400.4	385.2
42.5°	439.4	431.8	397.5	368.1	350.9
45°	408.0	399.4	365.2	334.8	321.5
47.5°	376.6	369.0	337.6	306.2	291.0
50°	343.3	336.7	308.1	276.8	260.6
52.5°	315.7	305.3	277.7	246.3	233.0
55°	283.4	274.9	249.2	219.7	208.3
57.5°	253.9	245.4	221.6	194.0	184.5
60°	226.4	214.0	194.0	170.2	162.6
62.5°	195.9	186.4	169.3	149.3	158.8
65°	168.3	158.8	143.6	146.5	121.7
67.5°	137.9	133.1	119.8	106.5	102.7
70°	112.2	106.5	101.8	87.5	83.7
72.5°	89.4	83.7	77.0	69.4	66.6
75°	67.5	62.8	59.0	56.1	61.8
77.5°	46.6	44.7	41.8	39.0	38.0
80°	30.4	29.5	28.5	27.6	26.6
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)