

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: P559161

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559161
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-80-88-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1674.0 lumens
Efficiency: N/A
Efficacy: 77.5 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

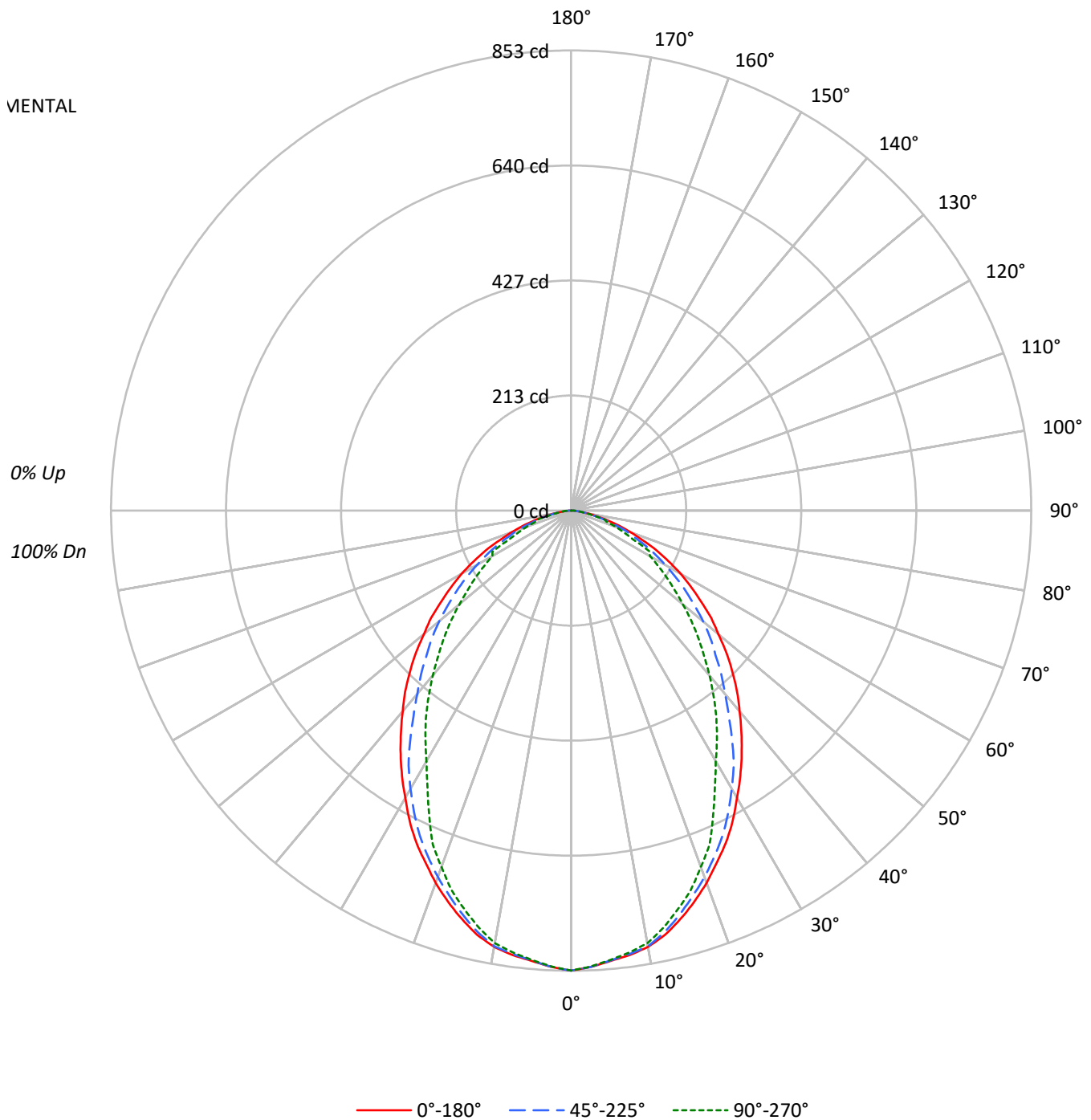
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9178	9178	9178
5°	9054	9043	9033
10°	8976	8965	8900
15°	8733	8645	8525
20°	8412	8277	8052
25°	8067	7891	7399
30°	7645	7400	6666
35°	7242	6840	6165
40°	6829	6233	5609
45°	6438	5762	5072
50°	5960	5349	4523
55°	5514	4847	4052
60°	5050	4329	3630
65°	4444	3792	3214
70°	3660	3320	2732
75°	2911	2541	2666
80°	1953	1835	1711
85°	1223	1457	1704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6438 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	4.7
10°-20°	217.8	13.0
20°-30°	301.6	18.0
30°-40°	321.6	19.2
40°-50°	293.4	17.5
50°-60°	229.8	13.7
60°-70°	149.8	8.9
70°-80°	66.4	4.0
80°-90°	14.2	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°	598.8	35.8
0°-40°	920.4	55.0
0°-60°	1443.6	86.2
0°-90°	1674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	838	837	837	836	836	80
15°	784	784	776	768	765	220
25°	679	675	664	641	623	312
35°	551	547	520	481	469	345
45°	423	414	378	347	333	326
55°	294	285	258	228	216	263
65°	174	165	149	152	126	172
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	852.7	852.7	852.7	852.7	852.7
2.5°	846.8	846.8	846.8	845.8	845.8
5°	837.9	836.9	836.9	836.0	836.0
7.5°	831.0	830.0	829.1	828.1	826.1
10°	821.2	821.2	820.2	815.3	814.3
12.5°	805.4	804.4	800.5	793.6	791.6
15°	783.7	783.7	775.8	767.9	765.0
17.5°	760.0	759.1	749.2	741.3	737.4
20°	734.4	732.4	722.6	709.8	702.9
22.5°	705.8	705.8	694.0	677.2	670.3
25°	679.2	675.3	664.4	640.8	623.0
27.5°	648.7	642.7	630.9	597.4	576.7
30°	615.1	612.2	595.4	552.0	536.3
32.5°	583.6	578.7	560.9	515.6	502.8
35°	551.1	547.1	520.5	481.1	469.2
37.5°	518.5	513.6	480.1	448.5	433.8
40°	486.0	480.1	443.6	415.0	399.2
42.5°	455.4	447.6	412.1	381.5	363.8
45°	422.9	414.0	378.5	347.0	333.2
47.5°	390.4	382.5	350.0	317.4	301.7
50°	355.9	349.0	319.4	286.9	270.1
52.5°	327.3	316.4	287.9	255.3	241.5
55°	293.8	284.9	258.3	227.7	215.9
57.5°	263.2	254.3	229.7	201.1	191.2
60°	234.6	221.8	201.1	176.5	168.6
62.5°	203.1	193.2	175.5	154.8	164.6
65°	174.5	164.6	148.9	151.8	126.2
67.5°	142.9	138.0	124.2	110.4	106.5
70°	116.3	110.4	105.5	90.7	86.8
72.5°	92.7	86.8	79.8	72.0	69.0
75°	70.0	65.1	61.1	58.2	64.1
77.5°	48.3	46.3	43.4	40.4	39.4
80°	31.5	30.6	29.6	28.6	27.6
82.5°	18.7	18.7	18.7	18.7	18.7
85°	9.9	10.8	11.8	12.8	13.8
87.5°	5.9	5.9	6.9	7.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)