

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: P590038

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1STD-35-UNV-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1912.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

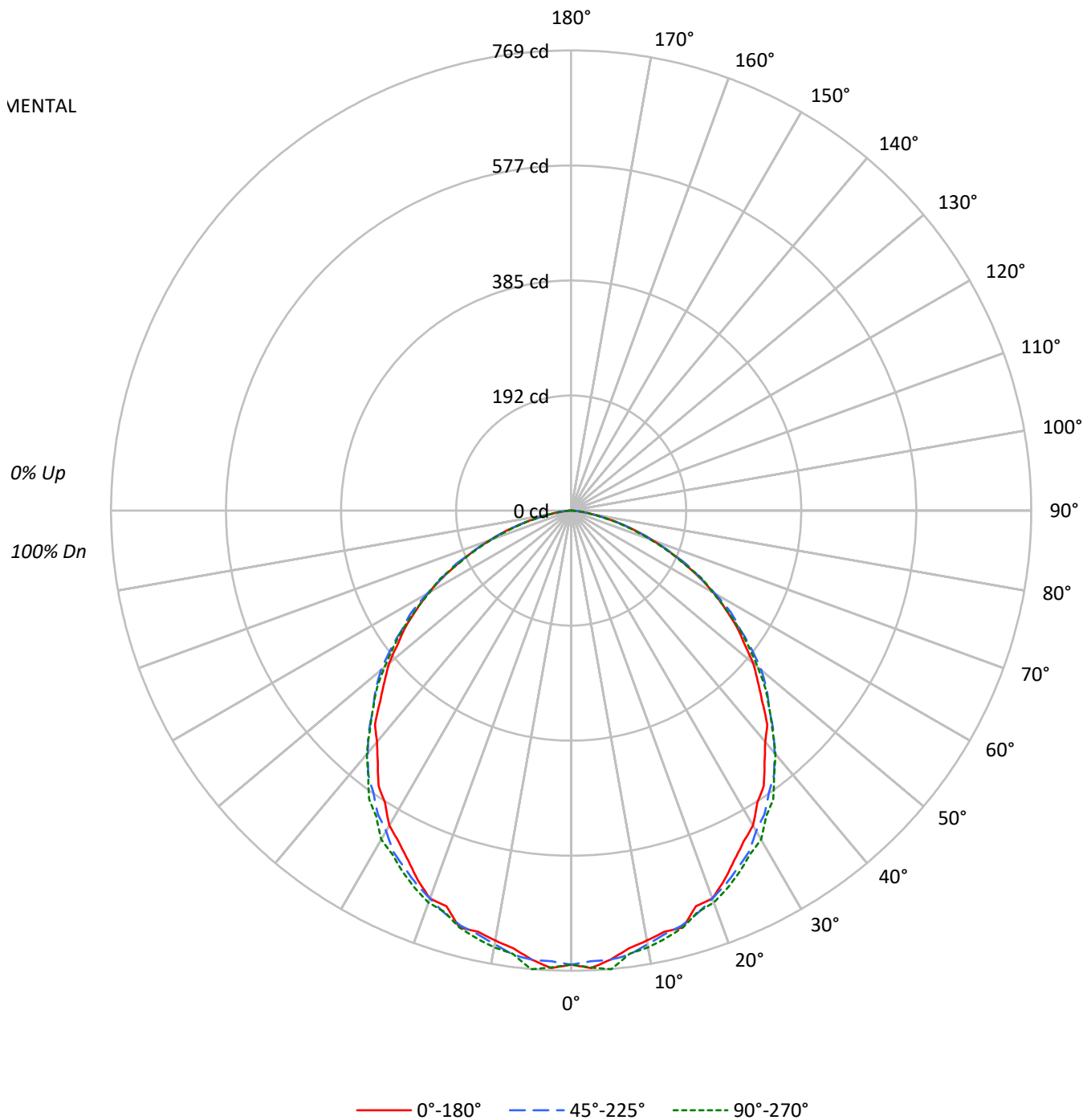
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2041	2041	2041
5°	2035	2035	2078
10°	1993	2011	2025
15°	2009	1998	2009
20°	1975	1975	1996
25°	1915	1956	1978
30°	1888	1922	1972
35°	1844	1892	1935
40°	1772	1857	1866
45°	1719	1780	1782
50°	1662	1737	1704
55°	1583	1614	1603
60°	1481	1496	1469
65°	1321	1354	1311
70°	1133	1137	1105
75°	897	895	861
80°	601	584	561
85°	327	324	303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1826 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	3.7
10°-20°	202.2	10.6
20°-30°	303.0	15.8
30°-40°	359.1	18.8
40°-50°	359.8	18.8
50°-60°	305.4	16.0
60°-70°	205.9	10.8
70°-80°	90.5	4.7
80°-90°	14.7	0.8
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°	576.6	30.2
0°-40°	935.7	48.9
0°-60°	1600.9	83.7
0°-90°	1912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1912.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	759	759	759	759	759	
5°	753	752	754	751	769	71
15°	721	713	717	721	721	201
25°	645	648	659	668	666	298
35°	561	563	576	589	589	348
45°	452	460	468	480	468	349
55°	338	335	344	342	342	300
65°	207	205	213	204	206	206
75°	86	84	86	80	83	92
85°	11	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	758.6	758.6	758.6	758.6	758.6
2.5°	765.2	759.4	754.0	760.3	764.1
5°	753.2	751.5	753.5	751.3	769.4
7.5°	737.8	744.5	748.4	746.0	747.1
10°	729.5	727.2	735.9	742.0	741.1
12.5°	720.7	724.3	724.7	731.3	731.9
15°	721.2	712.9	717.3	721.0	721.3
17.5°	693.2	702.2	705.2	713.8	703.2
20°	689.8	683.2	689.8	698.5	697.1
22.5°	668.7	661.4	675.5	683.2	682.7
25°	644.8	648.3	658.9	667.5	666.2
27.5°	623.9	628.0	643.1	654.9	647.3
30°	607.7	605.6	618.4	628.9	634.8
32.5°	578.8	586.2	601.1	611.6	606.0
35°	561.3	562.9	576.0	589.3	588.9
37.5°	530.6	538.3	556.7	560.4	557.0
40°	504.4	512.2	528.7	532.8	531.1
42.5°	485.2	486.5	500.7	505.3	498.0
45°	451.6	460.0	467.6	479.7	468.3
47.5°	423.0	426.9	443.3	446.6	440.6
50°	397.0	398.4	414.9	410.9	407.0
52.5°	364.4	370.2	379.5	378.7	374.1
55°	337.5	335.3	344.1	341.8	341.7
57.5°	305.3	309.2	316.5	312.8	306.8
60°	275.1	275.2	277.9	273.7	272.9
62.5°	241.5	242.7	243.3	238.1	246.5
65°	207.4	204.6	212.7	204.5	205.9
67.5°	175.9	177.3	176.5	171.4	173.4
70°	144.0	145.8	144.5	138.7	140.5
72.5°	114.8	112.6	114.0	106.8	110.1
75°	86.3	84.5	86.1	80.0	82.8
77.5°	58.8	60.1	59.2	55.9	57.8
80°	38.8	37.7	37.7	35.9	36.2
82.5°	22.6	21.5	21.3	20.7	21.5
85°	10.6	10.3	10.5	10.2	9.8
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)