

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: P590071

Luminaire Tested: FSR-24-2-LD4-1STD-40-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590071
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-40-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1910.0 lumens
Efficiency: N/A
Efficacy: 115.1 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

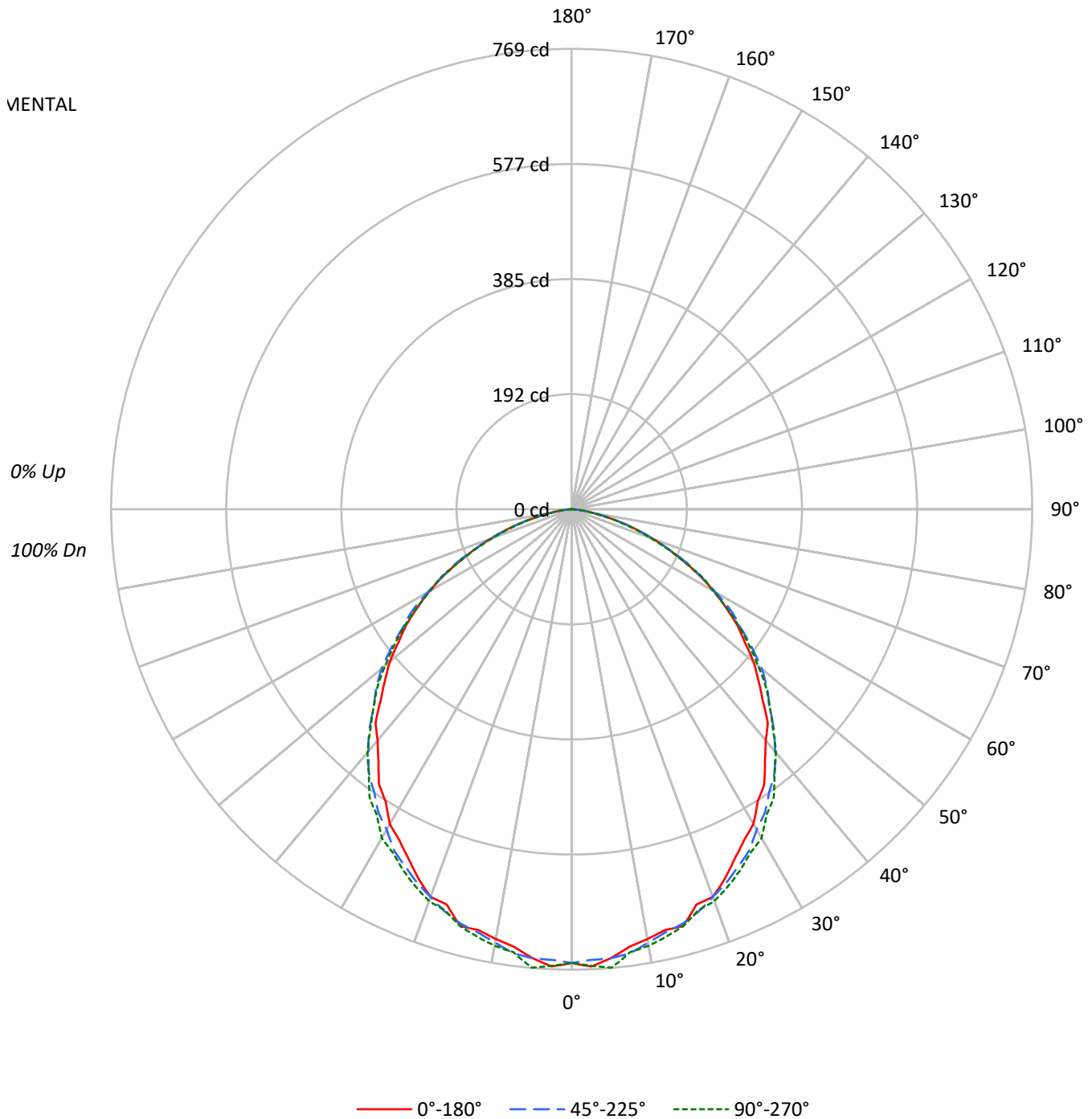
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	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°	2039	2039	2039
5°	2033	2034	2076
10°	1991	2009	2023
15°	2007	1996	2008
20°	1973	1973	1994
25°	1912	1954	1976
30°	1886	1919	1971
35°	1842	1890	1933
40°	1770	1855	1864
45°	1717	1778	1780
50°	1660	1735	1702
55°	1582	1612	1601
60°	1480	1494	1467
65°	1319	1352	1310
70°	1131	1135	1104
75°	896	894	860
80°	600	584	561
85°	327	324	303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	3.7
10°-20°	202.0	10.6
20°-30°	302.7	15.8
30°-40°	358.8	18.8
40°-50°	359.4	18.8
50°-60°	305.1	16.0
60°-70°	205.7	10.8
70°-80°	90.4	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°	576.0	30.2
0°-40°	934.8	48.9
0°-60°	1599.3	83.7
0°-90°	1910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	752	751	753	750	769	71
15°	720	712	716	720	721	201
25°	644	648	658	667	666	298
35°	561	562	575	589	588	348
45°	451	460	467	479	468	349
55°	337	335	344	341	341	300
65°	207	204	212	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°	757.8	757.8	757.8	757.8	757.8
2.5°	764.4	758.6	753.2	759.5	763.3
5°	752.5	750.7	752.8	750.5	768.6
7.5°	737.0	743.7	747.7	745.2	746.3
10°	728.8	726.4	735.1	741.2	740.3
12.5°	720.0	723.5	724.0	730.5	731.1
15°	720.5	712.1	716.5	720.3	720.6
17.5°	692.5	701.5	704.5	713.0	702.5
20°	689.1	682.5	689.1	697.8	696.4
22.5°	668.0	660.7	674.8	682.5	682.0
25°	644.1	647.7	658.2	666.8	665.5
27.5°	623.2	627.3	642.4	654.2	646.6
30°	607.1	605.0	617.7	628.3	634.2
32.5°	578.2	585.6	600.5	611.0	605.4
35°	560.7	562.3	575.4	588.7	588.3
37.5°	530.0	537.8	556.1	559.8	556.4
40°	503.9	511.7	528.2	532.2	530.5
42.5°	484.6	486.0	500.2	504.8	497.5
45°	451.1	459.5	467.1	479.2	467.8
47.5°	422.5	426.4	442.9	446.1	440.1
50°	396.6	398.0	414.5	410.5	406.6
52.5°	364.0	369.8	379.1	378.3	373.7
55°	337.2	334.9	343.7	341.4	341.3
57.5°	305.0	308.9	316.1	312.4	306.5
60°	274.9	275.0	277.6	273.4	272.6
62.5°	241.3	242.5	243.1	237.9	246.3
65°	207.1	204.4	212.4	204.3	205.7
67.5°	175.7	177.1	176.3	171.2	173.2
70°	143.8	145.6	144.3	138.6	140.3
72.5°	114.7	112.5	113.9	106.7	110.0
75°	86.2	84.4	86.0	79.9	82.7
77.5°	58.7	60.1	59.1	55.9	57.7
80°	38.7	37.7	37.7	35.8	36.2
82.5°	22.6	21.5	21.2	20.6	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)