

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: P590069

Luminaire Tested: FSR-24-2-LD4-1STD-40-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590069
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-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1971.0 lumens
Efficiency: N/A
Efficacy: 118.7 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

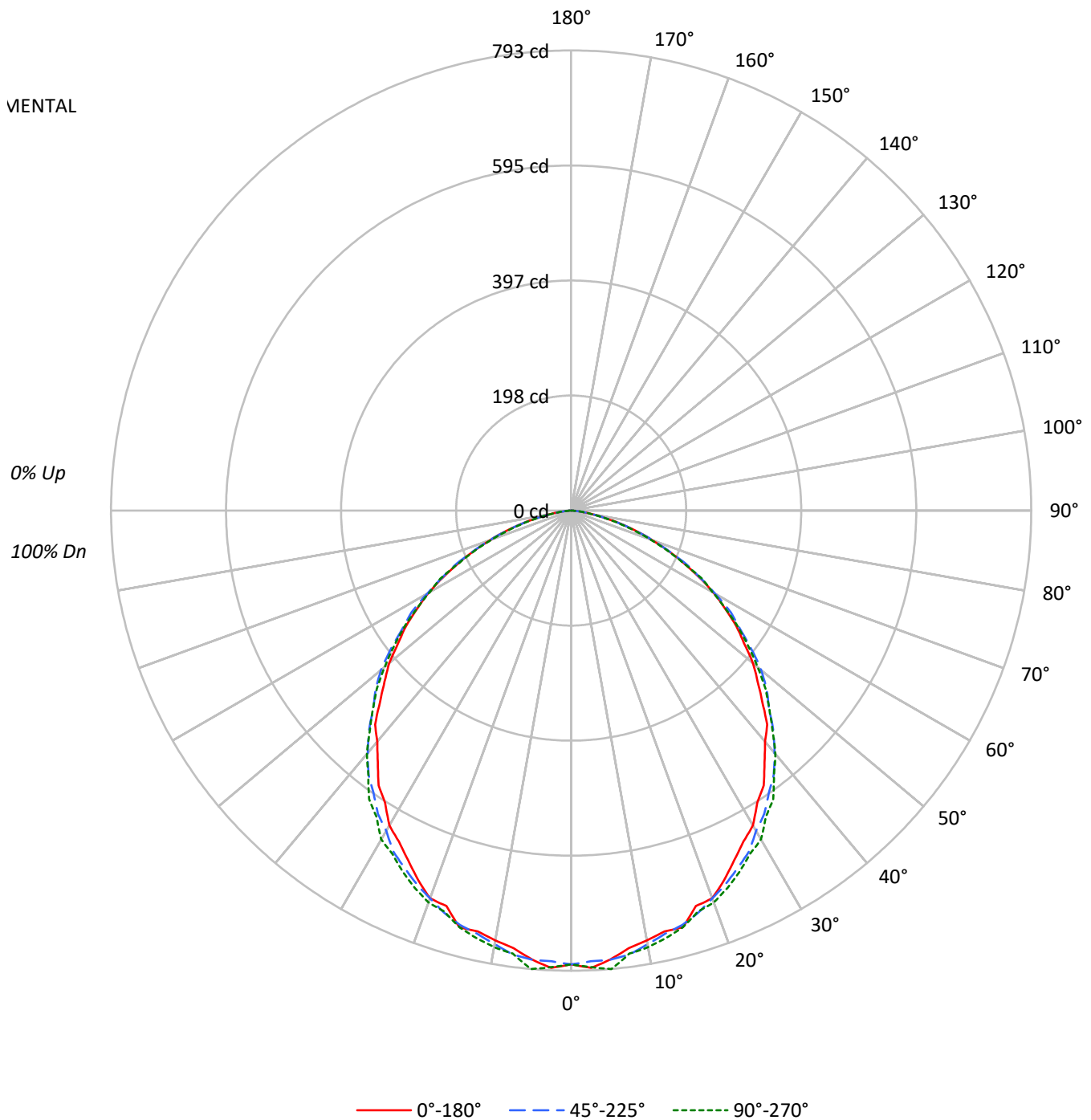
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2104	2104	2104
5°	2098	2098	2143
10°	2055	2073	2088
15°	2071	2060	2072
20°	2036	2036	2058
25°	1974	2017	2039
30°	1946	1981	2033
35°	1901	1950	1994
40°	1827	1915	1923
45°	1772	1834	1837
50°	1713	1791	1756
55°	1633	1664	1652
60°	1526	1542	1514
65°	1361	1396	1351
70°	1168	1172	1139
75°	925	923	887
80°	620	603	580
85°	337	333	312

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1882 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	3.7
10°-20°	208.5	10.6
20°-30°	312.4	15.8
30°-40°	370.2	18.8
40°-50°	370.9	18.8
50°-60°	314.8	16.0
60°-70°	212.2	10.8
70°-80°	93.3	4.7
80°-90°	15.1	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°	594.4	30.2
0°-40°	964.6	48.9
0°-60°	1650.3	83.7
0°-90°	1971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1971.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	776	775	777	774	793	73
15°	744	735	739	743	744	207
25°	665	668	679	688	687	307
35°	579	580	594	608	607	359
45°	466	474	482	494	483	360
55°	348	346	355	352	352	310
65°	214	211	219	211	212	213
75°	89	87	89	82	85	95
85°	11	11	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	782.0	782.0	782.0	782.0	782.0
2.5°	788.8	782.9	777.3	783.8	787.7
5°	776.5	774.7	776.8	774.5	793.2
7.5°	760.5	767.5	771.5	769.0	770.1
10°	752.1	749.6	758.6	764.9	764.0
12.5°	743.0	746.6	747.1	753.9	754.5
15°	743.5	734.9	739.4	743.3	743.6
17.5°	714.6	723.9	727.0	735.8	724.9
20°	711.1	704.3	711.1	720.0	718.6
22.5°	689.3	681.8	696.3	704.3	703.8
25°	664.7	668.3	679.3	688.1	686.7
27.5°	643.1	647.3	662.9	675.1	667.2
30°	626.4	624.3	637.4	648.4	654.4
32.5°	596.7	604.3	619.7	630.5	624.7
35°	578.6	580.3	593.7	607.5	607.1
37.5°	547.0	555.0	573.8	577.7	574.1
40°	520.0	528.0	545.1	549.2	547.5
42.5°	500.1	501.5	516.2	520.9	513.4
45°	465.5	474.2	482.0	494.5	482.8
47.5°	436.0	440.0	457.0	460.3	454.2
50°	409.2	410.7	427.7	423.6	419.5
52.5°	375.6	381.6	391.2	390.4	385.6
55°	348.0	345.6	354.7	352.3	352.2
57.5°	314.7	318.8	326.2	322.4	316.3
60°	283.6	283.7	286.5	282.1	281.3
62.5°	249.0	250.2	250.8	245.5	254.2
65°	213.8	210.9	219.2	210.8	212.2
67.5°	181.3	182.8	182.0	176.7	178.7
70°	148.4	150.2	148.9	143.0	144.8
72.5°	118.3	116.1	117.5	110.1	113.5
75°	89.0	87.1	88.8	82.5	85.3
77.5°	60.6	62.0	61.0	57.7	59.6
80°	40.0	38.9	38.9	37.0	37.4
82.5°	23.3	22.2	21.9	21.3	22.2
85°	10.9	10.6	10.8	10.5	10.1
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)