

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: P590617

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590617
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-LD4-3STD-35-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4943.0 lumens
Efficiency: N/A
Efficacy: 98.9 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

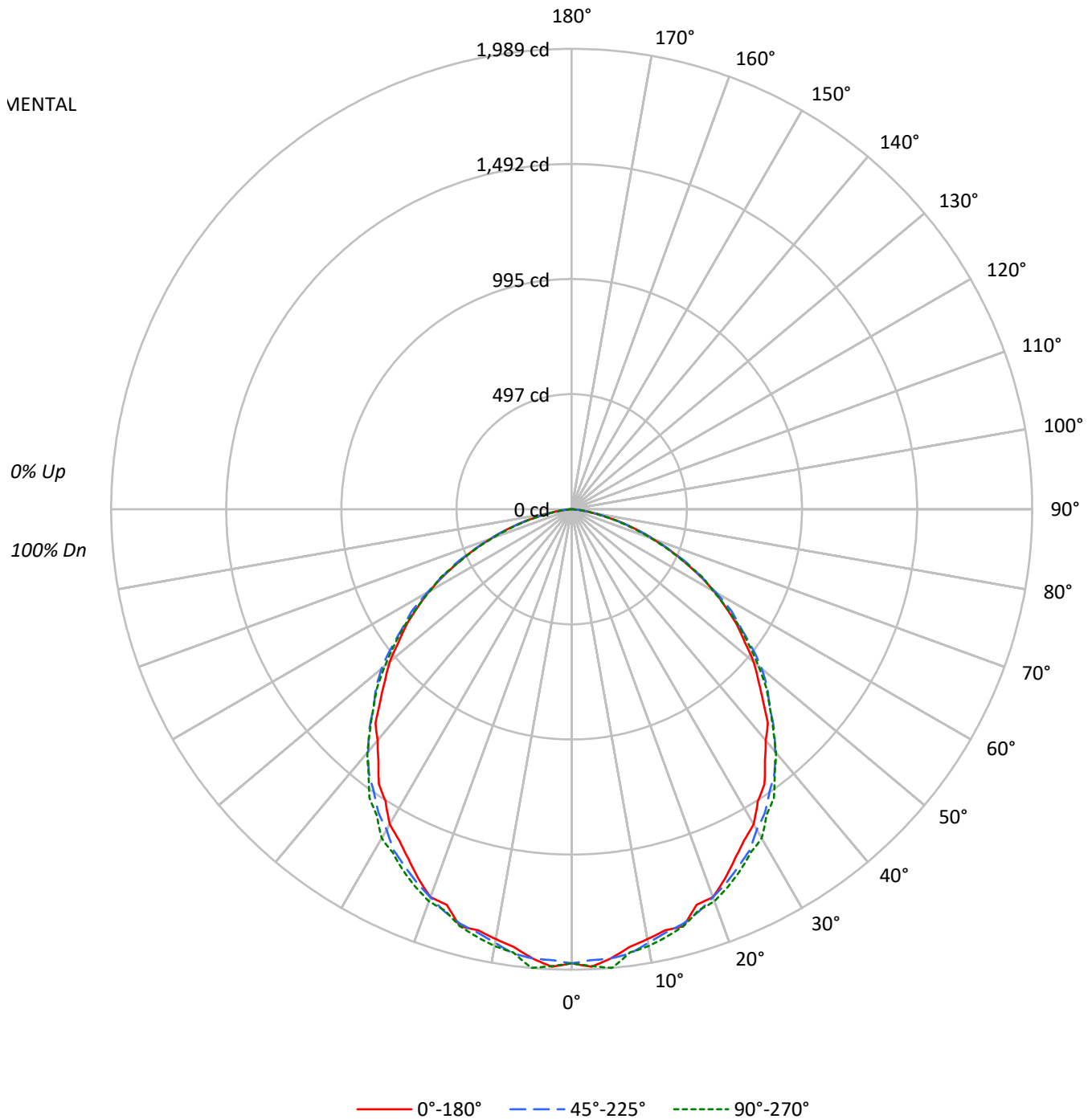
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5278	5278	5278
5°	5260	5262	5373
10°	5153	5199	5235
15°	5194	5166	5195
20°	5107	5107	5161
25°	4950	5058	5113
30°	4882	4967	5100
35°	4767	4891	5001
40°	4581	4802	4823
45°	4443	4601	4607
50°	4297	4491	4405
55°	4094	4174	4144
60°	3828	3866	3797
65°	3414	3501	3389
70°	2928	2939	2857
75°	2320	2314	2225
80°	1554	1511	1452
85°	843	837	781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4719 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.5	3.7
10°-20°	522.9	10.6
20°-30°	783.3	15.8
30°-40°	928.4	18.8
40°-50°	930.1	18.8
50°-60°	789.5	16.0
60°-70°	532.3	10.8
70°-80°	233.9	4.7
80°-90°	38.0	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°	1490.7	30.2
0°-40°	2419.1	48.9
0°-60°	4138.8	83.7
0°-90°	4943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1947	1943	1948	1942	1989	184
15°	1864	1843	1854	1864	1865	519
25°	1667	1676	1704	1726	1722	771
35°	1451	1455	1489	1523	1522	901
45°	1167	1189	1209	1240	1211	903
55°	873	867	890	884	883	776
65°	536	529	550	529	532	533
75°	223	218	223	207	214	239
85°	27	27	27	26	25	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1961.3	1961.3	1961.3	1961.3	1961.3
2.5°	1978.2	1963.3	1949.4	1965.6	1975.4
5°	1947.3	1942.8	1948.1	1942.3	1989.1
7.5°	1907.3	1924.8	1934.9	1928.6	1931.4
10°	1886.0	1880.0	1902.5	1918.2	1915.9
12.5°	1863.3	1872.4	1873.6	1890.6	1892.1
15°	1864.5	1843.0	1854.4	1864.0	1864.8
17.5°	1792.1	1815.4	1823.2	1845.3	1817.9
20°	1783.2	1766.3	1783.2	1805.8	1802.2
22.5°	1728.8	1709.8	1746.3	1766.3	1765.0
25°	1667.0	1676.1	1703.5	1725.8	1722.2
27.5°	1612.8	1623.5	1662.4	1693.1	1673.3
30°	1571.0	1565.7	1598.6	1626.0	1641.2
32.5°	1496.3	1515.6	1554.1	1581.2	1566.7
35°	1451.0	1455.3	1489.0	1523.4	1522.4
37.5°	1371.7	1391.7	1439.1	1448.7	1439.9
40°	1304.1	1324.1	1366.9	1377.3	1373.0
42.5°	1254.2	1257.8	1294.5	1306.4	1287.4
45°	1167.4	1189.2	1208.9	1240.1	1210.7
47.5°	1093.4	1103.6	1146.1	1154.5	1139.0
50°	1026.3	1029.9	1072.7	1062.3	1052.2
52.5°	942.0	957.0	981.0	979.0	967.1
55°	872.6	866.8	889.6	883.5	883.3
57.5°	789.3	799.4	818.2	808.6	793.1
60°	711.3	711.6	718.4	707.5	705.5
62.5°	624.5	627.5	629.0	615.6	637.4
65°	536.1	529.0	549.8	528.7	532.3
67.5°	454.8	458.3	456.3	443.2	448.2
70°	372.2	376.8	373.5	358.6	363.1
72.5°	296.8	291.2	294.8	276.0	284.6
75°	223.1	218.5	222.6	206.9	214.0
77.5°	151.9	155.5	153.0	144.6	149.4
80°	100.3	97.5	97.5	92.7	93.7
82.5°	58.5	55.7	55.0	53.4	55.7
85°	27.3	26.6	27.1	26.3	25.3
87.5°	9.9	10.1	10.1	9.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)