

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: P560885

Luminaire Tested: FSR-12-4-LD4-1HI-50-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560885
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-12-4-LD4-1HI-50-UNV-80-86-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4055.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

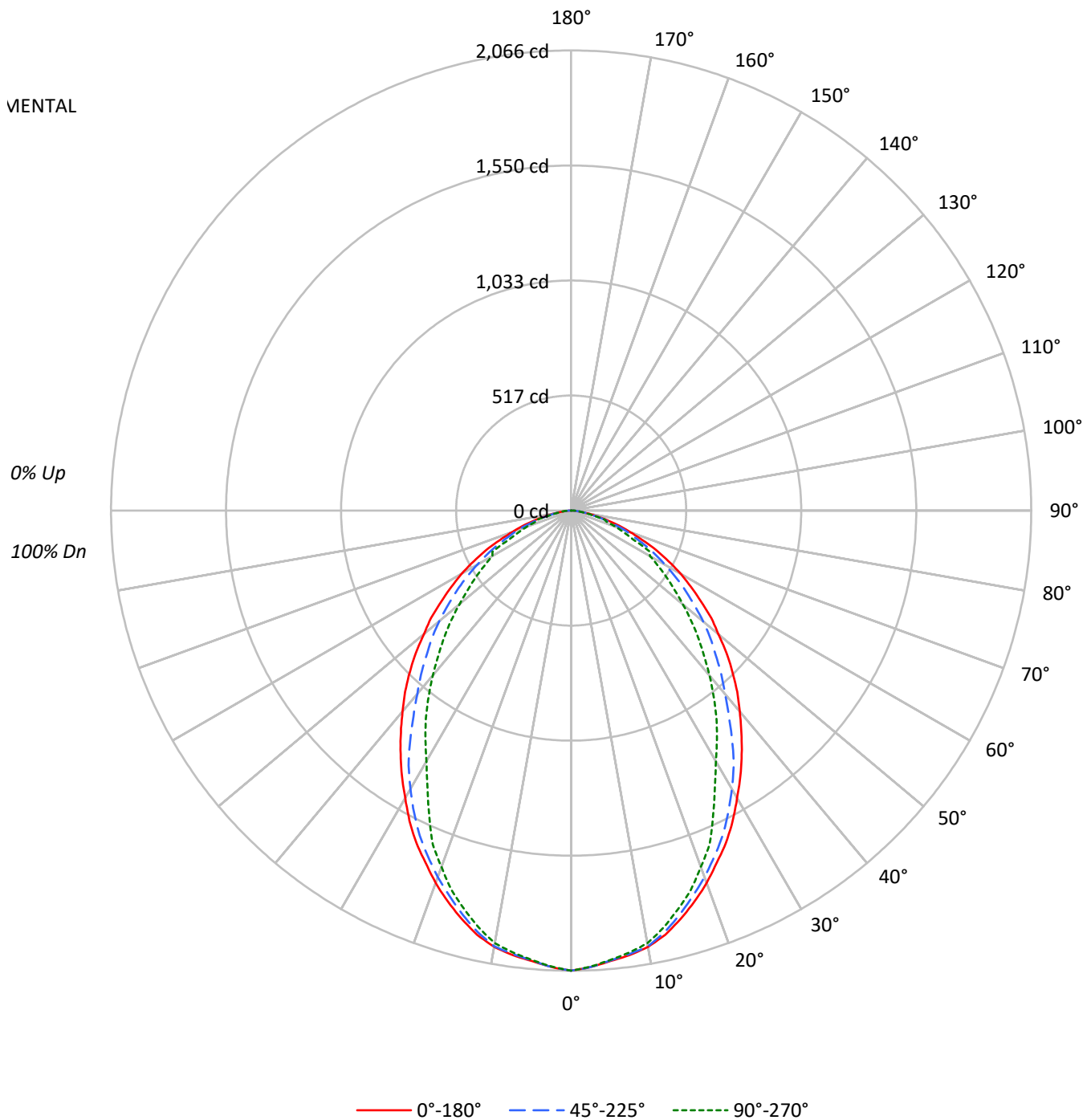
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560885

CATALOG NUMBER: FSR-12-4-LD4-1HI-50-UNV-80-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560885

CATALOG NUMBER: FSR-12-4-LD4-1HI-50-UNV-80-86-EDD

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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5558	5558	5558
5°	5483	5477	5470
10°	5435	5429	5390
15°	5289	5236	5162
20°	5094	5013	4876
25°	4885	4779	4481
30°	4630	4482	4036
35°	4385	4142	3734
40°	4136	3775	3397
45°	3898	3490	3072
50°	3609	3239	2739
55°	3339	2935	2454
60°	3059	2622	2197
65°	2691	2296	1947
70°	2217	2010	1653
75°	1762	1540	1614
80°	1184	1110	1037
85°	738	886	1031

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3898 cd/sqm



TEST NUMBER: P560885

CATALOG NUMBER: FSR-12-4-LD4-1HI-50-UNV-80-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.3	4.7
10°-20°	527.7	13.0
20°-30°	730.5	18.0
30°-40°	779.0	19.2
40°-50°	710.6	17.5
50°-60°	556.7	13.7
60°-70°	362.9	8.9
70°-80°	160.8	4.0
80°-90°	34.5	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°	1450.5	35.8
0°-40°	2229.5	55.0
0°-60°	3496.9	86.2
0°-90°	4055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2030	2027	2027	2025	2025	193
15°	1898	1898	1879	1860	1853	534
25°	1645	1636	1610	1552	1509	755
35°	1335	1325	1261	1165	1137	835
45°	1024	1003	917	841	807	789
55°	712	690	626	552	523	638
65°	423	399	361	368	306	417
75°	170	158	148	141	155	182
85°	24	26	29	31	33	33
90°	0	0	0	0	0	



TEST NUMBER: P560885

CATALOG NUMBER: FSR-12-4-LD4-1HI-50-UNV-80-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2065.6	2065.6	2065.6	2065.6	2065.6
2.5°	2051.2	2051.2	2051.2	2048.8	2048.8
5°	2029.7	2027.4	2027.4	2025.0	2025.0
7.5°	2013.0	2010.6	2008.3	2005.9	2001.1
10°	1989.1	1989.1	1986.8	1974.8	1972.4
12.5°	1950.9	1948.6	1939.0	1922.3	1917.5
15°	1898.4	1898.4	1879.3	1860.2	1853.0
17.5°	1841.1	1838.7	1814.8	1795.7	1786.2
20°	1779.0	1774.2	1750.4	1719.3	1702.6
22.5°	1709.8	1709.8	1681.1	1640.5	1623.8
25°	1645.3	1635.7	1609.5	1552.2	1509.2
27.5°	1571.3	1556.9	1528.3	1447.1	1396.9
30°	1490.1	1482.9	1442.3	1337.2	1299.0
32.5°	1413.7	1401.7	1358.7	1248.9	1217.8
35°	1334.9	1325.3	1260.8	1165.3	1136.7
37.5°	1256.1	1244.1	1162.9	1086.5	1050.7
40°	1177.3	1162.9	1074.6	1005.3	967.1
42.5°	1103.2	1084.1	998.2	924.1	881.1
45°	1024.4	1002.9	917.0	840.6	807.1
47.5°	945.6	926.5	847.7	768.9	730.7
50°	862.0	845.3	773.7	694.9	654.3
52.5°	792.8	766.5	697.3	618.5	585.0
55°	711.6	690.1	625.6	551.6	523.0
57.5°	637.6	616.1	556.4	487.1	463.3
60°	568.3	537.3	487.1	427.4	408.3
62.5°	491.9	468.0	425.1	374.9	398.8
65°	422.7	398.8	360.6	367.7	305.7
67.5°	346.3	334.3	300.9	267.4	257.9
70°	281.8	267.4	255.5	219.7	210.1
72.5°	224.5	210.1	193.4	174.3	167.2
75°	169.5	157.6	148.1	140.9	155.2
77.5°	117.0	112.2	105.1	97.9	95.5
80°	76.4	74.0	71.6	69.3	66.9
82.5°	45.4	45.4	45.4	45.4	45.4
85°	23.9	26.3	28.7	31.0	33.4
87.5°	14.3	14.3	16.7	19.1	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)