

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: P562289

Luminaire Tested: FSR-24-4-LD4-1STD-35-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562289
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-24-4-LD4-1STD-35-UNV-80-84-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3902.0 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

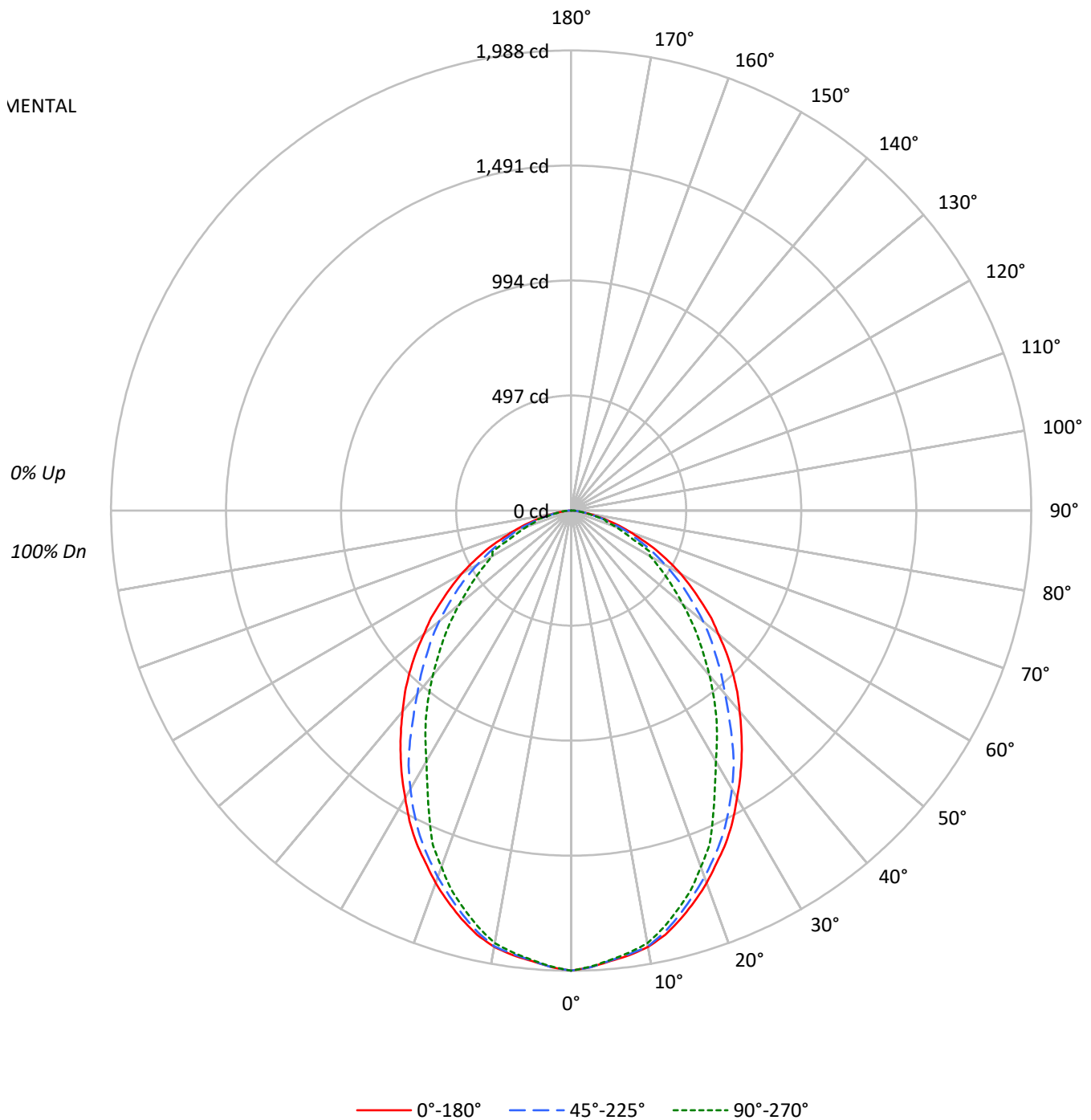
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2674	2674	2674
5°	2638	2635	2632
10°	2615	2612	2593
15°	2545	2519	2484
20°	2451	2412	2346
25°	2350	2299	2156
30°	2228	2156	1942
35°	2110	1993	1797
40°	1990	1816	1635
45°	1876	1679	1478
50°	1736	1558	1318
55°	1606	1412	1180
60°	1472	1262	1057
65°	1295	1105	936
70°	1066	967	795
75°	848	741	777
80°	570	534	498
85°	355	426	497

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1876 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.0	4.7
10°-20°	507.8	13.0
20°-30°	703.0	18.0
30°-40°	749.6	19.2
40°-50°	683.8	17.5
50°-60°	535.7	13.7
60°-70°	349.2	8.9
70°-80°	154.7	4.0
80°-90°	33.2	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°	1395.8	35.8
0°-40°	2145.4	55.0
0°-60°	3364.9	86.2
0°-90°	3902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1988	1988	1988	1988	1988	
5°	1953	1951	1951	1949	1949	185
15°	1827	1827	1808	1790	1783	514
25°	1583	1574	1549	1494	1452	727
35°	1284	1275	1213	1121	1094	803
45°	986	965	882	809	777	759
55°	685	664	602	531	503	614
65°	407	384	347	354	294	401
75°	163	152	142	136	149	175
85°	23	25	28	30	32	32
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1987.6	1987.6	1987.6	1987.6	1987.6
2.5°	1973.8	1973.8	1973.8	1971.5	1971.5
5°	1953.2	1950.9	1950.9	1948.6	1948.6
7.5°	1937.1	1934.8	1932.5	1930.2	1925.6
10°	1914.1	1914.1	1911.8	1900.3	1898.0
12.5°	1877.3	1875.0	1865.8	1849.8	1845.2
15°	1826.8	1826.8	1808.4	1790.0	1783.1
17.5°	1771.6	1769.3	1746.4	1728.0	1718.8
20°	1711.9	1707.3	1684.3	1654.4	1638.4
22.5°	1645.2	1645.2	1617.7	1578.6	1562.5
25°	1583.2	1574.0	1548.7	1493.6	1452.2
27.5°	1512.0	1498.2	1470.6	1392.5	1344.2
30°	1433.8	1427.0	1387.9	1286.8	1250.0
32.5°	1360.3	1348.8	1307.5	1201.8	1171.9
35°	1284.5	1275.3	1213.3	1121.3	1093.8
37.5°	1208.7	1197.2	1119.0	1045.5	1011.0
40°	1132.8	1119.0	1034.0	967.4	930.6
42.5°	1061.6	1043.2	960.5	889.3	847.9
45°	985.8	965.1	882.4	808.8	776.7
47.5°	909.9	891.6	815.7	739.9	703.1
50°	829.5	813.4	744.5	668.7	629.6
52.5°	762.9	737.6	671.0	595.1	563.0
55°	684.8	664.1	602.0	530.8	503.2
57.5°	613.5	592.8	535.4	468.8	445.8
60°	546.9	517.0	468.8	411.3	392.9
62.5°	473.4	450.4	409.0	360.8	383.7
65°	406.7	383.7	347.0	353.9	294.1
67.5°	333.2	321.7	289.5	257.4	248.2
70°	271.1	257.4	245.9	211.4	202.2
72.5°	216.0	202.2	186.1	167.7	160.8
75°	163.1	151.7	142.5	135.6	149.4
77.5°	112.6	108.0	101.1	94.2	91.9
80°	73.5	71.2	68.9	66.6	64.3
82.5°	43.7	43.7	43.7	43.7	43.7
85°	23.0	25.3	27.6	29.9	32.2
87.5°	13.8	13.8	16.1	18.4	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)