

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: P560767

Luminaire Tested: FSR-12-4-LD4-1HI-35-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560767
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-35-UNV-80-97-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

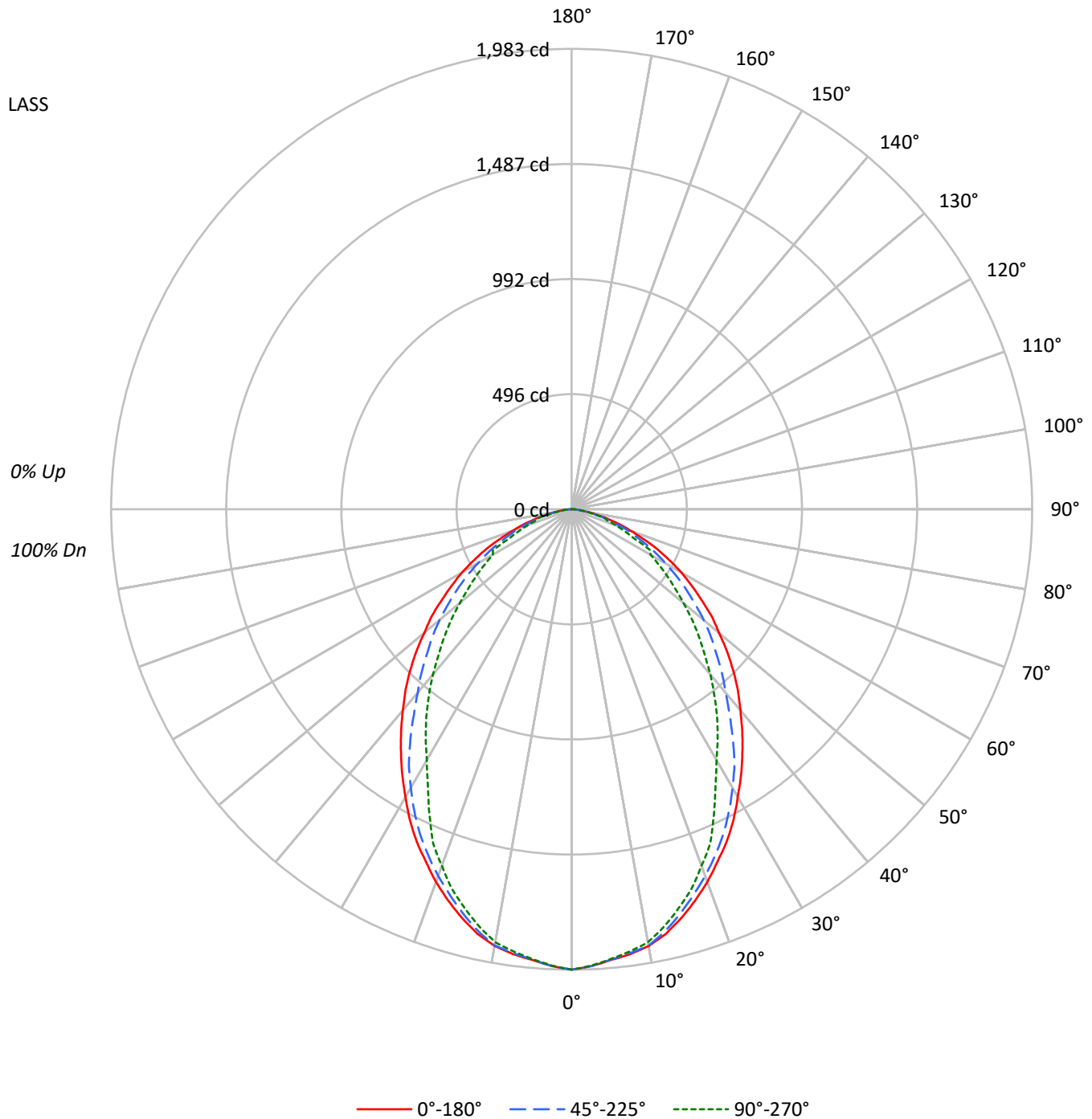
Lumens per Lamp: N/A
Luminaire Lumens: 3893.0 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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



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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	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°	5336	5336	5336
5°	5264	5258	5252
10°	5218	5212	5174
15°	5078	5026	4956
20°	4891	4812	4681
25°	4690	4588	4302
30°	4445	4303	3875
35°	4210	3977	3585
40°	3970	3624	3262
45°	3743	3350	2949
50°	3465	3110	2630
55°	3205	2818	2356
60°	2936	2517	2110
65°	2584	2204	1868
70°	2128	1930	1587
75°	1693	1477	1549
80°	1137	1066	995
85°	707	849	991

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3743 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.6	4.7
10°-20°	506.6	13.0
20°-30°	701.4	18.0
30°-40°	747.9	19.2
40°-50°	682.3	17.5
50°-60°	534.5	13.7
60°-70°	348.4	8.9
70°-80°	154.3	4.0
80°-90°	33.1	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°	1392.6	35.8
0°-40°	2140.4	55.0
0°-60°	3357.2	86.2
0°-90°	3893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1983	1983	1983	1983	1983	
5°	1949	1946	1946	1944	1944	185
15°	1823	1823	1804	1786	1779	512
25°	1580	1570	1545	1490	1449	725
35°	1282	1272	1210	1119	1091	801
45°	984	963	880	807	775	758
55°	683	662	601	530	502	613
65°	406	383	346	353	293	400
75°	163	151	142	135	149	174
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°	1983.0	1983.0	1983.0	1983.0	1983.0
2.5°	1969.3	1969.3	1969.3	1967.0	1967.0
5°	1948.7	1946.4	1946.4	1944.1	1944.1
7.5°	1932.6	1930.3	1928.0	1925.7	1921.1
10°	1909.7	1909.7	1907.4	1895.9	1893.6
12.5°	1873.0	1870.7	1861.5	1845.5	1840.9
15°	1822.6	1822.6	1804.2	1785.9	1779.0
17.5°	1767.5	1765.3	1742.3	1724.0	1714.8
20°	1707.9	1703.4	1680.4	1650.6	1634.6
22.5°	1641.5	1641.5	1613.9	1575.0	1558.9
25°	1579.6	1570.4	1545.2	1490.1	1448.9
27.5°	1508.5	1494.7	1467.2	1389.3	1341.1
30°	1430.5	1423.7	1384.7	1283.8	1247.1
32.5°	1357.2	1345.7	1304.5	1199.0	1169.2
35°	1281.5	1272.4	1210.5	1118.8	1091.2
37.5°	1205.9	1194.4	1116.5	1043.1	1008.7
40°	1130.2	1116.5	1031.6	965.2	928.5
42.5°	1059.2	1040.8	958.3	887.2	845.9
45°	983.5	962.9	880.3	807.0	774.9
47.5°	907.8	889.5	813.8	738.2	701.5
50°	827.6	811.6	742.8	667.1	628.2
52.5°	761.1	735.9	669.4	593.8	561.7
55°	683.2	662.5	600.6	529.6	502.1
57.5°	612.1	591.5	534.2	467.7	444.8
60°	545.6	515.8	467.7	410.4	392.0
62.5°	472.3	449.3	408.1	359.9	382.9
65°	405.8	382.9	346.2	353.1	293.4
67.5°	332.4	321.0	288.9	256.8	247.6
70°	270.5	256.8	245.3	210.9	201.7
72.5°	215.5	201.7	185.7	167.4	160.5
75°	162.8	151.3	142.1	135.3	149.0
77.5°	112.3	107.7	100.9	94.0	91.7
80°	73.4	71.1	68.8	66.5	64.2
82.5°	43.6	43.6	43.6	43.6	43.6
85°	22.9	25.2	27.5	29.8	32.1
87.5°	13.8	13.8	16.0	18.3	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)