

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: P562365

Luminaire Tested: FSR-24-4-LD4-1STD-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562365
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-40-UNV-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3907.0 lumens
Efficiency: N/A
Efficacy: 117.3 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

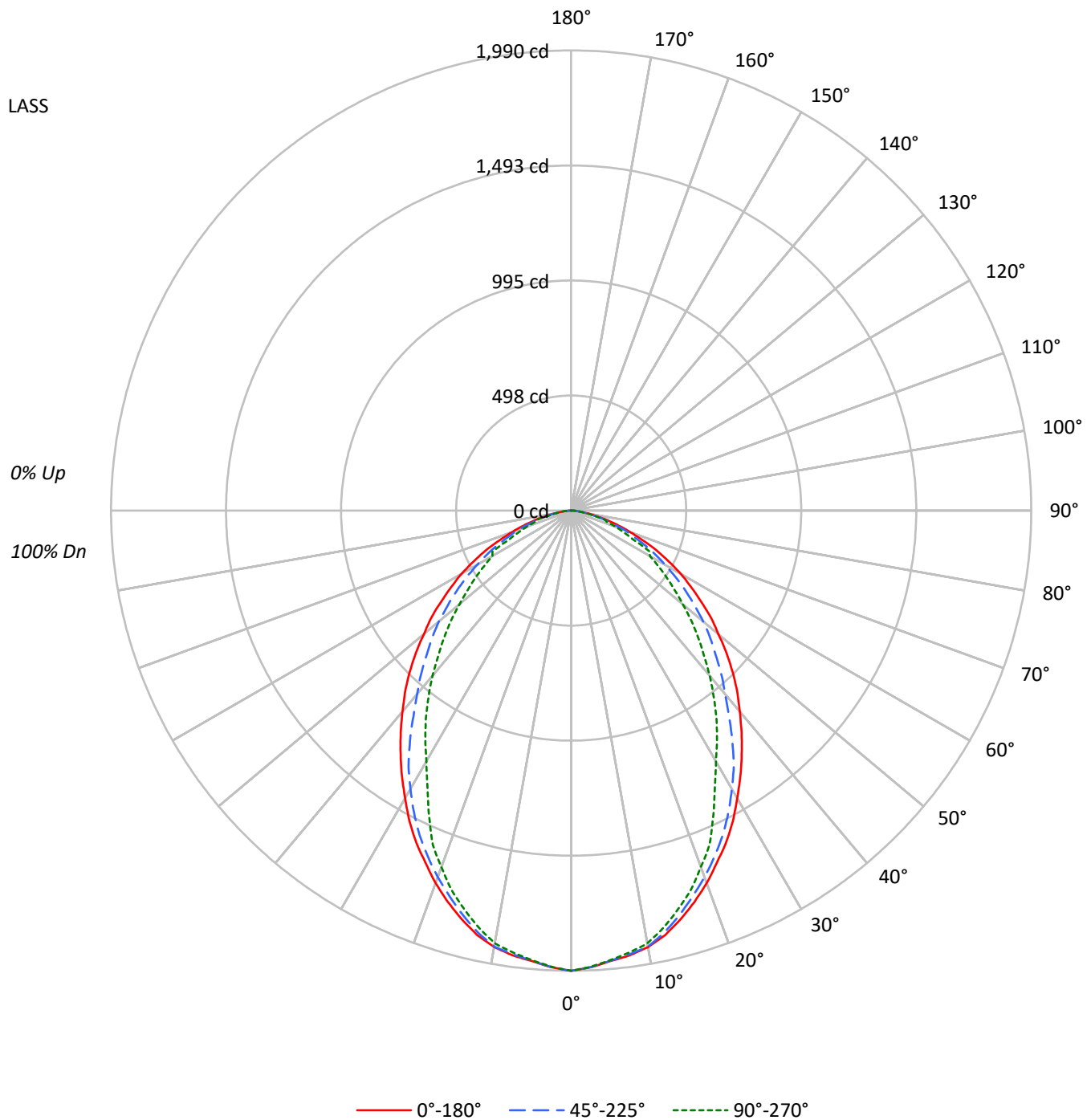
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2678	2678	2678
5°	2641	2638	2635
10°	2618	2615	2596
15°	2548	2522	2487
20°	2454	2415	2349
25°	2353	2302	2159
30°	2231	2159	1945
35°	2112	1995	1799
40°	1992	1819	1637
45°	1878	1681	1480
50°	1739	1560	1320
55°	1608	1414	1182
60°	1474	1263	1059
65°	1296	1106	938
70°	1068	969	797
75°	849	741	778
80°	570	535	499
85°	355	426	497

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1878 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.3	4.7
10°-20°	508.4	13.0
20°-30°	703.9	18.0
30°-40°	750.5	19.2
40°-50°	684.7	17.5
50°-60°	536.4	13.7
60°-70°	349.6	8.9
70°-80°	154.9	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°	1397.6	35.8
0°-40°	2148.1	55.0
0°-60°	3369.3	86.2
0°-90°	3907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3907.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1956	1953	1953	1951	1951	186
15°	1829	1829	1811	1792	1785	514
25°	1585	1576	1551	1496	1454	728
35°	1286	1277	1215	1123	1095	804
45°	987	966	884	810	778	760
55°	686	665	603	532	504	615
65°	407	384	347	354	294	401
75°	163	152	143	136	150	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°	1990.2	1990.2	1990.2	1990.2	1990.2
2.5°	1976.4	1976.4	1976.4	1974.1	1974.1
5°	1955.7	1953.4	1953.4	1951.1	1951.1
7.5°	1939.6	1937.3	1935.0	1932.7	1928.1
10°	1916.5	1916.5	1914.2	1902.7	1900.4
12.5°	1879.7	1877.4	1868.2	1852.1	1847.5
15°	1829.1	1829.1	1810.7	1792.3	1785.4
17.5°	1773.9	1771.6	1748.6	1730.2	1721.0
20°	1714.1	1709.5	1686.5	1656.6	1640.5
22.5°	1647.4	1647.4	1619.7	1580.6	1564.5
25°	1585.2	1576.0	1550.7	1495.5	1454.1
27.5°	1513.9	1500.1	1472.5	1394.3	1346.0
30°	1435.7	1428.8	1389.7	1288.4	1251.6
32.5°	1362.1	1350.6	1309.1	1203.3	1173.4
35°	1286.1	1276.9	1214.8	1122.8	1095.2
37.5°	1210.2	1198.7	1120.5	1046.9	1012.3
40°	1134.3	1120.5	1035.4	968.6	931.8
42.5°	1063.0	1044.6	961.7	890.4	849.0
45°	987.0	966.3	883.5	809.9	777.7
47.5°	911.1	892.7	816.8	740.9	704.0
50°	830.6	814.5	745.5	669.5	630.4
52.5°	763.9	738.5	671.8	595.9	563.7
55°	685.6	664.9	602.8	531.5	503.9
57.5°	614.3	593.6	536.1	469.4	446.4
60°	547.6	517.7	469.4	411.8	393.4
62.5°	474.0	451.0	409.5	361.2	384.2
65°	407.2	384.2	347.4	354.3	294.5
67.5°	333.6	322.1	289.9	257.7	248.5
70°	271.5	257.7	246.2	211.7	202.5
72.5°	216.3	202.5	186.4	168.0	161.1
75°	163.4	151.9	142.6	135.7	149.6
77.5°	112.7	108.1	101.2	94.3	92.0
80°	73.6	71.3	69.0	66.7	64.4
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)