

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: P560637

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560637
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-12-2-LD4-2STD-40-UNV-80-96-EDD
Description: 1X2 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: 3054.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

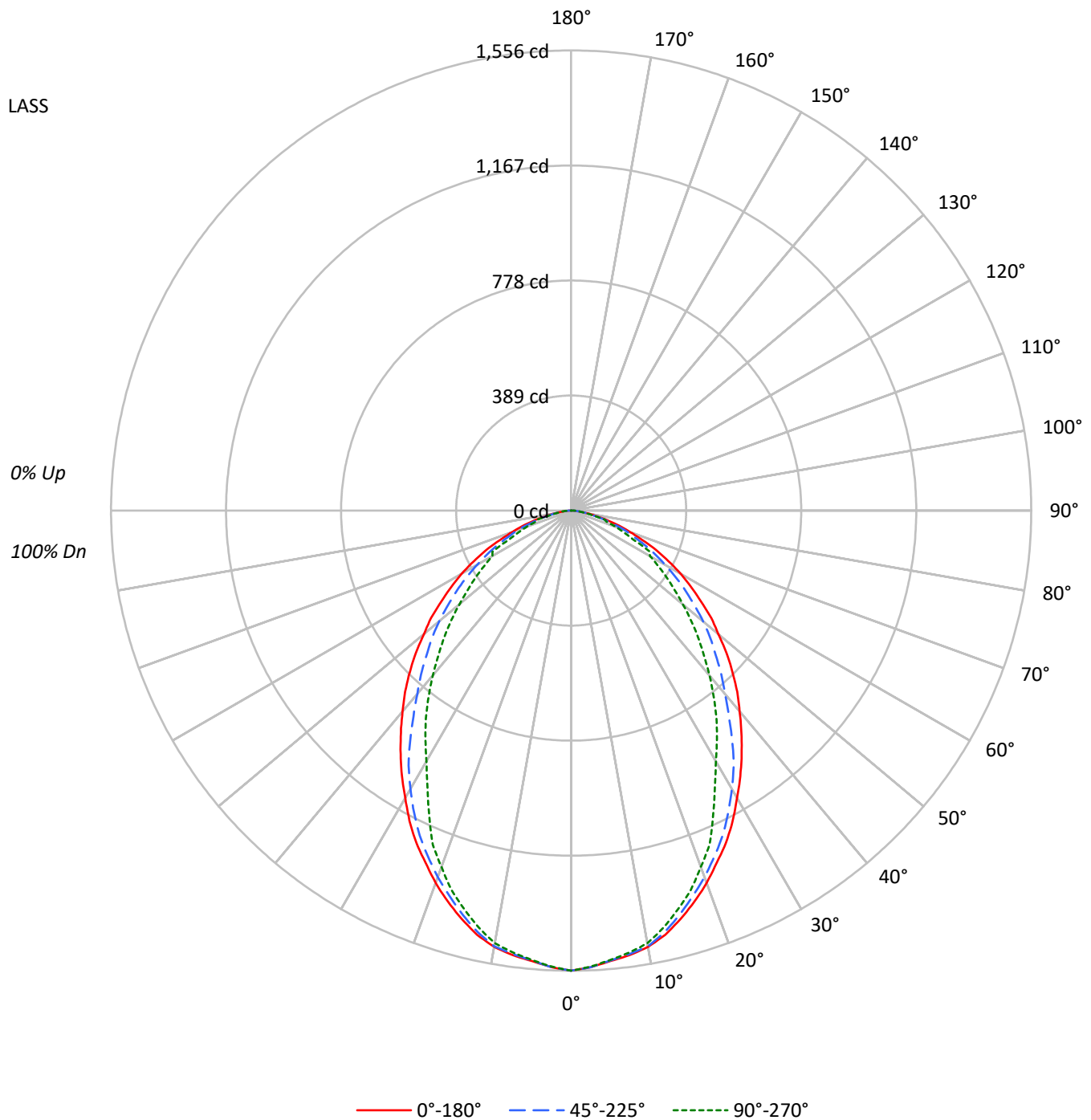
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8373	8373	8373
5°	8259	8249	8239
10°	8187	8177	8118
15°	7967	7886	7776
20°	7674	7550	7344
25°	7358	7198	6750
30°	6974	6751	6080
35°	6605	6239	5625
40°	6229	5686	5117
45°	5872	5256	4627
50°	5436	4879	4126
55°	5028	4421	3696
60°	4607	3949	3310
65°	4053	3459	2932
70°	3339	3028	2491
75°	2655	2319	2431
80°	1785	1674	1562
85°	1112	1334	1556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5872 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.8	4.7
10°-20°	397.4	13.0
20°-30°	550.2	18.0
30°-40°	586.7	19.2
40°-50°	535.2	17.5
50°-60°	419.3	13.7
60°-70°	273.3	8.9
70°-80°	121.1	4.0
80°-90°	26.0	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°	1092.4	35.8
0°-40°	1679.1	55.0
0°-60°	2633.6	86.2
0°-90°	3054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1556	1556	1556	1556	1556	
5°	1529	1527	1527	1525	1525	145
15°	1430	1430	1415	1401	1396	402
25°	1239	1232	1212	1169	1137	569
35°	1005	998	950	878	856	629
45°	772	755	691	633	608	594
55°	536	520	471	415	394	481
65°	318	300	272	277	230	314
75°	128	119	112	106	117	137
85°	18	20	22	23	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1555.7	1555.7	1555.7	1555.7	1555.7
2.5°	1544.9	1544.9	1544.9	1543.1	1543.1
5°	1528.7	1526.9	1526.9	1525.1	1525.1
7.5°	1516.1	1514.3	1512.5	1510.7	1507.1
10°	1498.1	1498.1	1496.3	1487.3	1485.5
12.5°	1469.3	1467.5	1460.3	1447.8	1444.2
15°	1429.8	1429.8	1415.4	1401.0	1395.6
17.5°	1386.6	1384.8	1366.8	1352.4	1345.2
20°	1339.9	1336.3	1318.3	1294.9	1282.3
22.5°	1287.7	1287.7	1266.1	1235.5	1223.0
25°	1239.1	1231.9	1212.2	1169.0	1136.6
27.5°	1183.4	1172.6	1151.0	1089.9	1052.1
30°	1122.2	1116.8	1086.3	1007.1	978.4
32.5°	1064.7	1055.7	1023.3	940.6	917.2
35°	1005.3	998.1	949.6	877.6	856.1
37.5°	946.0	937.0	875.8	818.3	791.3
40°	886.6	875.8	809.3	757.2	728.4
42.5°	830.9	816.5	751.8	696.0	663.6
45°	771.5	755.4	690.6	633.1	607.9
47.5°	712.2	697.8	638.5	579.1	550.3
50°	649.2	636.7	582.7	523.4	492.8
52.5°	597.1	577.3	525.1	465.8	440.6
55°	535.9	519.8	471.2	415.4	393.9
57.5°	480.2	464.0	419.0	366.9	348.9
60°	428.0	404.7	366.9	321.9	307.5
62.5°	370.5	352.5	320.1	282.4	300.3
65°	318.3	300.3	271.6	277.0	230.2
67.5°	260.8	251.8	226.6	201.4	194.2
70°	212.2	201.4	192.4	165.5	158.3
72.5°	169.1	158.3	145.7	131.3	125.9
75°	127.7	118.7	111.5	106.1	116.9
77.5°	88.1	84.5	79.1	73.7	71.9
80°	57.6	55.8	54.0	52.2	50.4
82.5°	34.2	34.2	34.2	34.2	34.2
85°	18.0	19.8	21.6	23.4	25.2
87.5°	10.8	10.8	12.6	14.4	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)