

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: P560629

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560629
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-80-86-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2986.0 lumens
Efficiency: N/A
Efficacy: 89.7 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

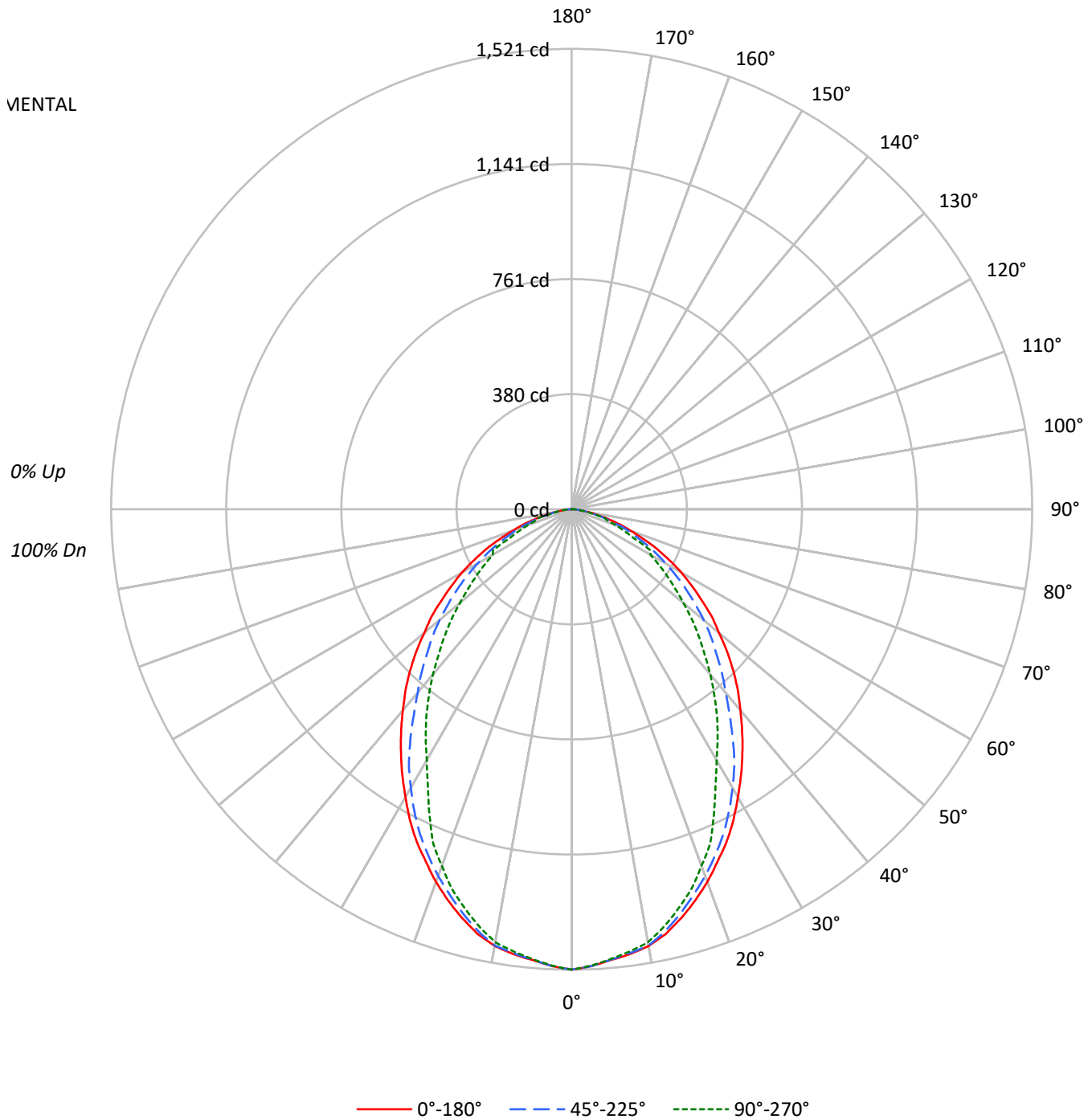
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8186	8186	8186
5°	8075	8065	8056
10°	8005	7995	7938
15°	7789	7711	7603
20°	7503	7382	7180
25°	7194	7038	6599
30°	6819	6600	5945
35°	6458	6100	5499
40°	6091	5559	5004
45°	5742	5139	4523
50°	5315	4770	4034
55°	4917	4323	3613
60°	4505	3861	3237
65°	3963	3381	2867
70°	3265	2961	2434
75°	2595	2267	2377
80°	1745	1636	1525
85°	1087	1303	1519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5742 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	4.7
10°-20°	388.6	13.0
20°-30°	538.0	18.0
30°-40°	573.6	19.2
40°-50°	523.3	17.5
50°-60°	410.0	13.7
60°-70°	267.2	8.9
70°-80°	118.4	4.0
80°-90°	25.4	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°	1068.1	35.8
0°-40°	1641.7	55.0
0°-60°	2575.0	86.2
0°-90°	2986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2986.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1521	1521	1521	1521	1521	
5°	1495	1493	1493	1491	1491	142
15°	1398	1398	1384	1370	1364	393
25°	1212	1204	1185	1143	1111	556
35°	983	976	928	858	837	615
45°	754	738	675	619	594	581
55°	524	508	461	406	385	470
65°	311	294	266	271	225	307
75°	125	116	109	104	114	134
85°	18	19	21	23	25	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1521.0	1521.0	1521.0	1521.0	1521.0
2.5°	1510.5	1510.5	1510.5	1508.7	1508.7
5°	1494.7	1492.9	1492.9	1491.1	1491.1
7.5°	1482.3	1480.6	1478.8	1477.1	1473.6
10°	1464.8	1464.8	1463.0	1454.2	1452.5
12.5°	1436.6	1434.9	1427.8	1415.5	1412.0
15°	1397.9	1397.9	1383.9	1369.8	1364.5
17.5°	1355.7	1354.0	1336.4	1322.3	1315.3
20°	1310.0	1306.5	1288.9	1266.1	1253.7
22.5°	1259.0	1259.0	1237.9	1208.0	1195.7
25°	1211.5	1204.5	1185.2	1143.0	1111.3
27.5°	1157.0	1146.5	1125.4	1065.6	1028.7
30°	1097.3	1092.0	1062.1	984.7	956.6
32.5°	1041.0	1032.2	1000.5	919.7	896.8
35°	983.0	975.9	928.4	858.1	837.0
37.5°	924.9	916.1	856.3	800.1	773.7
40°	866.9	856.3	791.3	740.3	712.2
42.5°	812.4	798.3	735.0	680.5	648.9
45°	754.4	738.5	675.2	619.0	594.3
47.5°	696.3	682.3	624.2	566.2	538.1
50°	634.8	622.5	569.7	511.7	481.8
52.5°	583.8	564.5	513.5	455.4	430.8
55°	524.0	508.2	460.7	406.2	385.1
57.5°	469.5	453.7	409.7	358.7	341.1
60°	418.5	395.6	358.7	314.8	300.7
62.5°	362.2	344.6	313.0	276.1	293.7
65°	311.2	293.7	265.5	270.8	225.1
67.5°	255.0	246.2	221.6	196.9	189.9
70°	207.5	196.9	188.2	161.8	154.7
72.5°	165.3	154.7	142.4	128.4	123.1
75°	124.8	116.1	109.0	103.7	114.3
77.5°	86.2	82.6	77.4	72.1	70.3
80°	56.3	54.5	52.8	51.0	49.2
82.5°	33.4	33.4	33.4	33.4	33.4
85°	17.6	19.3	21.1	22.9	24.6
87.5°	10.6	10.6	12.3	14.1	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)