

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: P560647

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560647
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-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2745.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

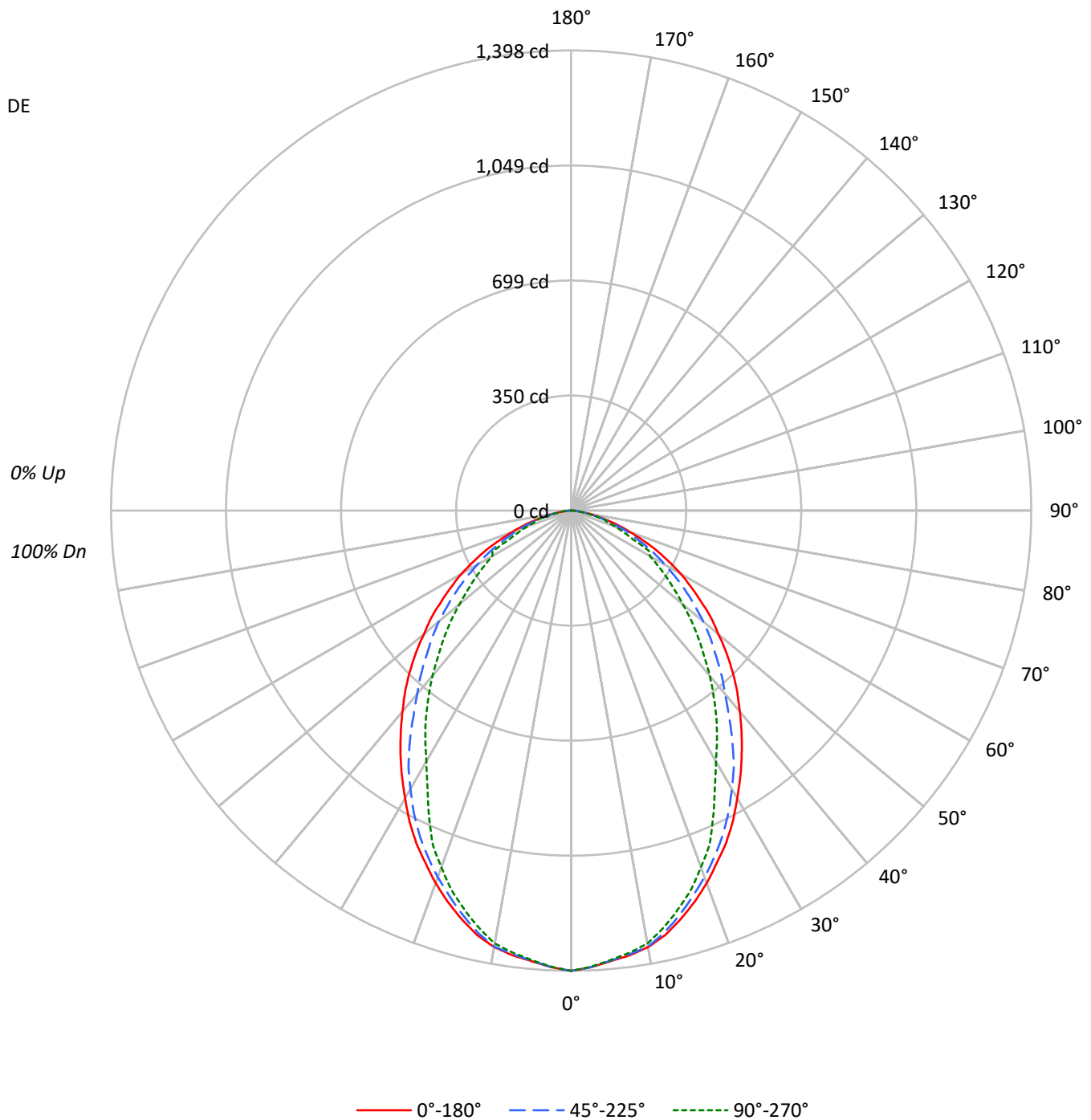
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7526	7526	7526
5°	7423	7414	7406
10°	7359	7350	7297
15°	7160	7088	6989
20°	6897	6786	6601
25°	6614	6470	6067
30°	6269	6068	5465
35°	5937	5608	5056
40°	5599	5110	4600
45°	5278	4724	4159
50°	4886	4385	3708
55°	4520	3974	3322
60°	4141	3550	2975
65°	3643	3109	2635
70°	3001	2722	2239
75°	2387	2084	2185
80°	1602	1503	1404
85°	1000	1198	1396

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5278 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	4.7
10°-20°	357.2	13.0
20°-30°	494.5	18.0
30°-40°	527.3	19.2
40°-50°	481.1	17.5
50°-60°	376.9	13.7
60°-70°	245.6	8.9
70°-80°	108.8	4.0
80°-90°	23.4	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°	981.9	35.8
0°-40°	1509.2	55.0
0°-60°	2367.2	86.2
0°-90°	2745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2745.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1374	1372	1372	1371	1371	130
15°	1285	1285	1272	1259	1254	361
25°	1114	1107	1090	1051	1022	511
35°	904	897	854	789	770	565
45°	694	679	621	569	546	534
55°	482	467	424	373	354	432
65°	286	270	244	249	207	282
75°	115	107	100	95	105	123
85°	16	18	19	21	23	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1398.3	1398.3	1398.3	1398.3	1398.3
2.5°	1388.6	1388.6	1388.6	1387.0	1387.0
5°	1374.0	1372.4	1372.4	1370.8	1370.8
7.5°	1362.7	1361.1	1359.5	1357.9	1354.6
10°	1346.5	1346.5	1344.9	1336.8	1335.2
12.5°	1320.7	1319.1	1312.6	1301.3	1298.0
15°	1285.1	1285.1	1272.2	1259.2	1254.4
17.5°	1246.3	1244.7	1228.5	1215.6	1209.1
20°	1204.3	1201.1	1184.9	1163.9	1152.6
22.5°	1157.4	1157.4	1138.0	1110.5	1099.2
25°	1113.8	1107.3	1089.5	1050.7	1021.6
27.5°	1063.7	1054.0	1034.6	979.6	945.6
30°	1008.7	1003.8	976.4	905.2	879.4
32.5°	957.0	948.9	919.8	845.4	824.4
35°	903.6	897.2	853.5	788.8	769.5
37.5°	850.3	842.2	787.2	735.5	711.3
40°	796.9	787.2	727.4	680.5	654.7
42.5°	746.8	733.9	675.7	625.6	596.5
45°	693.5	678.9	620.7	569.0	546.4
47.5°	640.1	627.2	573.9	520.5	494.6
50°	583.6	572.2	523.7	470.4	442.9
52.5°	536.7	518.9	472.0	418.7	396.0
55°	481.7	467.2	423.5	373.4	354.0
57.5°	431.6	417.1	376.6	329.8	313.6
60°	384.7	363.7	329.8	289.4	276.4
62.5°	333.0	316.8	287.7	253.8	270.0
65°	286.1	270.0	244.1	248.9	206.9
67.5°	234.4	226.3	203.7	181.0	174.6
70°	190.7	181.0	173.0	148.7	142.3
72.5°	152.0	142.3	130.9	118.0	113.2
75°	114.8	106.7	100.2	95.4	105.1
77.5°	79.2	76.0	71.1	66.3	64.7
80°	51.7	50.1	48.5	46.9	45.3
82.5°	30.7	30.7	30.7	30.7	30.7
85°	16.2	17.8	19.4	21.0	22.6
87.5°	9.7	9.7	11.3	12.9	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)