

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: P560577

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-81-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560577
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-35-UNV-81-84-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2898.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

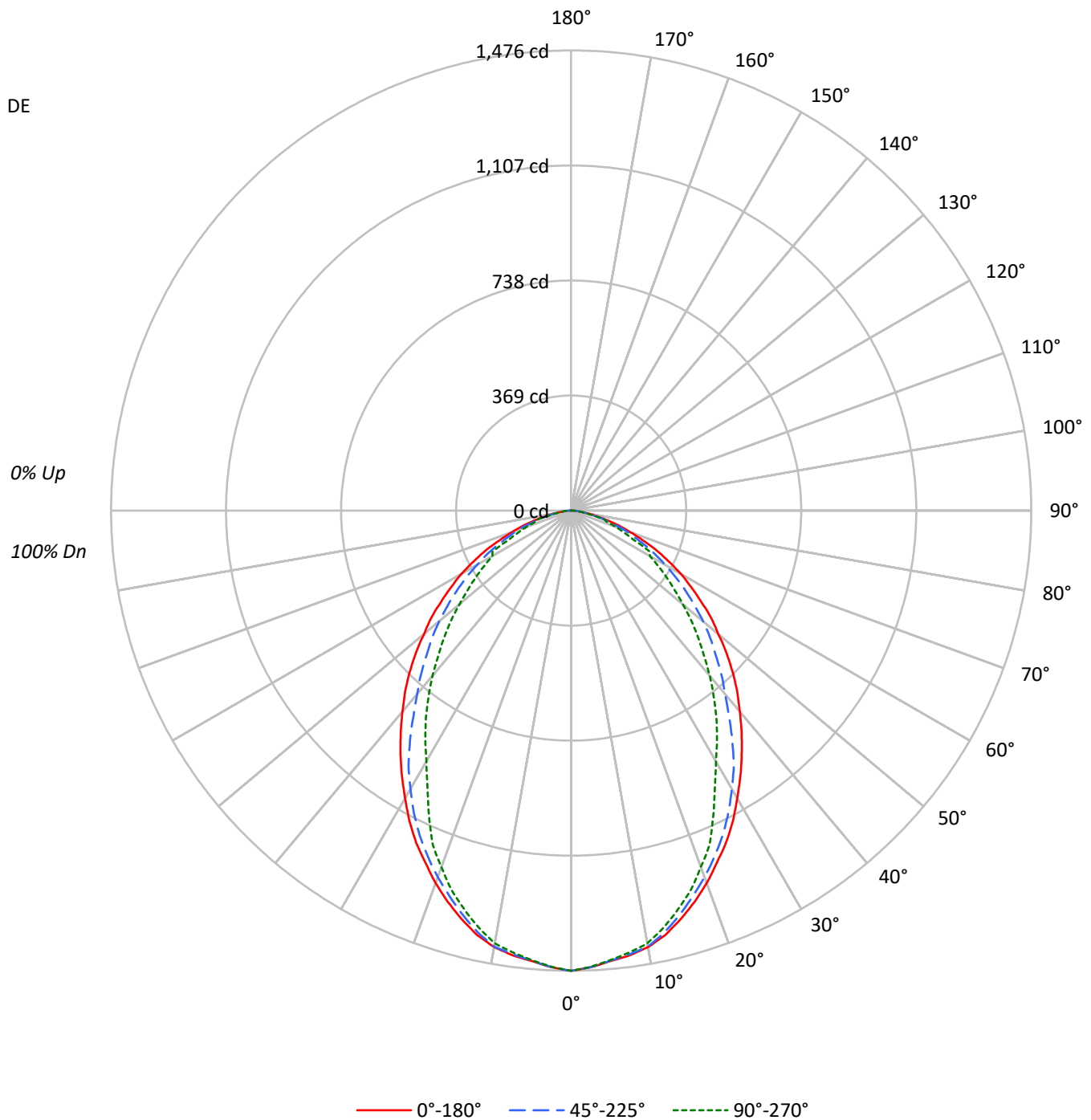
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7945	7945	7945
5°	7837	7828	7819
10°	7769	7760	7703
15°	7559	7484	7379
20°	7282	7164	6969
25°	6982	6830	6405
30°	6618	6406	5770
35°	6268	5920	5337
40°	5911	5396	4856
45°	5572	4988	4390
50°	5159	4629	3915
55°	4772	4195	3506
60°	4372	3747	3141
65°	3847	3282	2781
70°	3169	2873	2364
75°	2520	2200	2306
80°	1692	1587	1481
85°	1056	1266	1476

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5572 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	4.7
10°-20°	377.1	13.0
20°-30°	522.1	18.0
30°-40°	556.7	19.2
40°-50°	507.9	17.5
50°-60°	397.9	13.7
60°-70°	259.3	8.9
70°-80°	114.9	4.0
80°-90°	24.7	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°	1036.6	35.8
0°-40°	1593.4	55.0
0°-60°	2499.1	86.2
0°-90°	2898.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2898.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1476	1476	1476	1476	1476	
5°	1451	1449	1449	1447	1447	138
15°	1357	1357	1343	1329	1324	381
25°	1176	1169	1150	1109	1079	540
35°	954	947	901	833	812	596
45°	732	717	655	601	577	564
55°	509	493	447	394	374	456
65°	302	285	258	263	218	298
75°	121	113	106	101	111	130
85°	17	19	20	22	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1476.2	1476.2	1476.2	1476.2	1476.2
2.5°	1466.0	1466.0	1466.0	1464.3	1464.3
5°	1450.6	1448.9	1448.9	1447.2	1447.2
7.5°	1438.7	1437.0	1435.2	1433.5	1430.1
10°	1421.6	1421.6	1419.9	1411.4	1409.6
12.5°	1394.3	1392.6	1385.8	1373.8	1370.4
15°	1356.7	1356.7	1343.1	1329.4	1324.3
17.5°	1315.8	1314.1	1297.0	1283.4	1276.5
20°	1271.4	1268.0	1250.9	1228.7	1216.8
22.5°	1221.9	1221.9	1201.4	1172.4	1160.5
25°	1175.8	1169.0	1150.2	1109.3	1078.6
27.5°	1122.9	1112.7	1092.2	1034.2	998.4
30°	1064.9	1059.8	1030.8	955.7	928.4
32.5°	1010.3	1001.8	971.1	892.5	870.4
35°	954.0	947.2	901.1	832.8	812.3
37.5°	897.7	889.1	831.1	776.5	750.9
40°	841.4	831.1	768.0	718.5	691.2
42.5°	788.4	774.8	713.4	660.5	629.7
45°	732.1	716.8	655.3	600.7	576.8
47.5°	675.8	662.2	605.8	549.5	522.2
50°	616.1	604.1	552.9	496.6	467.6
52.5°	566.6	547.8	498.3	442.0	418.1
55°	508.6	493.2	447.1	394.2	373.7
57.5°	455.7	440.3	397.6	348.1	331.1
60°	406.2	384.0	348.1	305.5	291.8
62.5°	351.6	334.5	303.8	267.9	285.0
65°	302.1	285.0	257.7	262.8	218.4
67.5°	247.5	238.9	215.0	191.1	184.3
70°	201.4	191.1	182.6	157.0	150.2
72.5°	160.4	150.2	138.2	124.6	119.5
75°	121.2	112.6	105.8	100.7	110.9
77.5°	83.6	80.2	75.1	70.0	68.3
80°	54.6	52.9	51.2	49.5	47.8
82.5°	32.4	32.4	32.4	32.4	32.4
85°	17.1	18.8	20.5	22.2	23.9
87.5°	10.2	10.2	11.9	13.7	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)