

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: P560613

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560613
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-93-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2962.0 lumens
Efficiency: N/A
Efficacy: 88.9 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

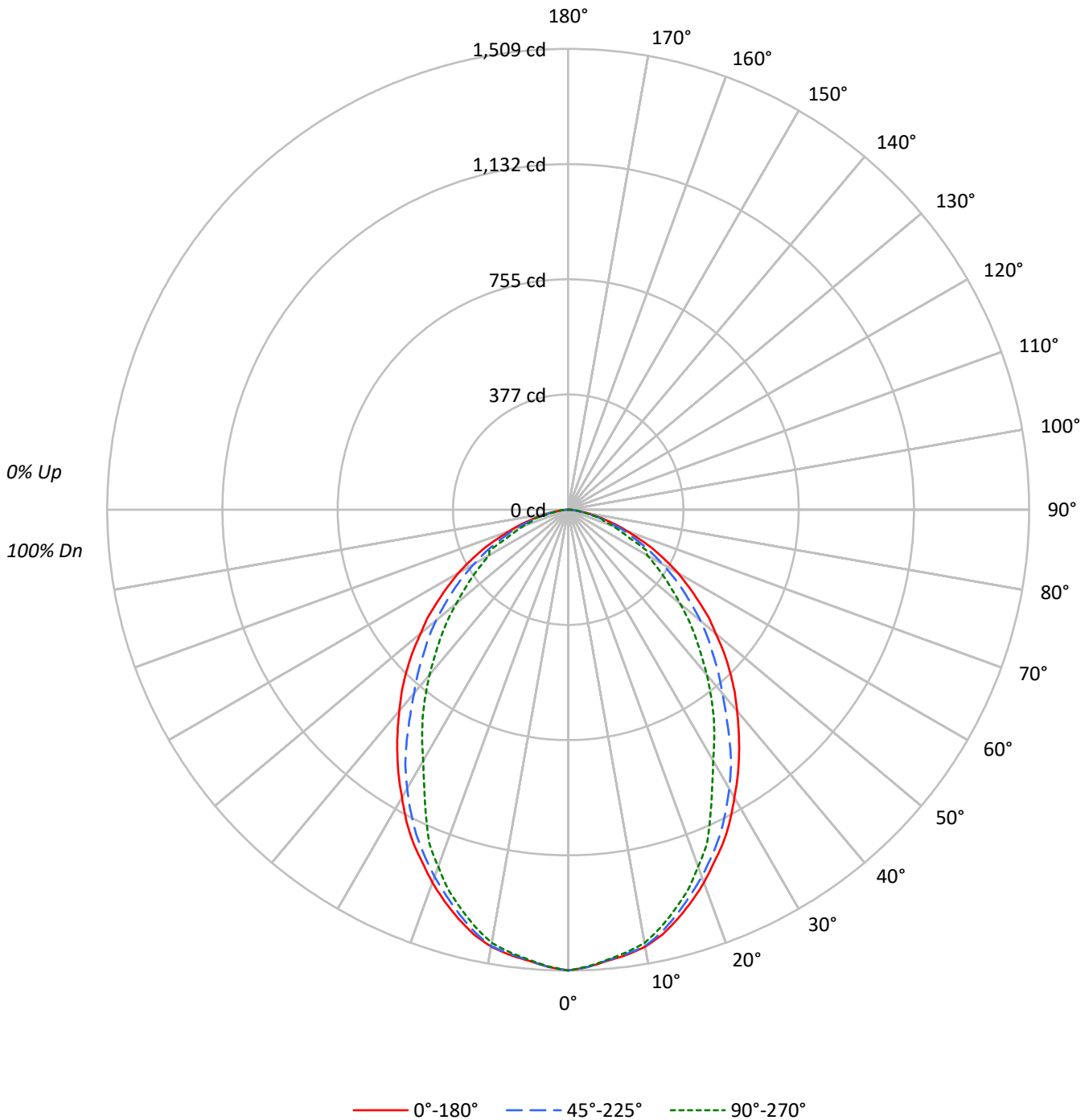
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8120	8120	8120
5°	8010	8001	7991
10°	7941	7931	7874
15°	7726	7648	7542
20°	7443	7323	7123
25°	7137	6981	6546
30°	6764	6547	5897
35°	6407	6051	5455
40°	6041	5514	4963
45°	5695	5098	4488
50°	5272	4731	4001
55°	4877	4288	3584
60°	4468	3830	3211
65°	3931	3354	2844
70°	3238	2936	2415
75°	2574	2248	2358
80°	1729	1621	1512
85°	1074	1291	1507

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5695 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	4.7
10°-20°	385.5	13.0
20°-30°	533.6	18.0
30°-40°	569.0	19.2
40°-50°	519.1	17.5
50°-60°	406.7	13.7
60°-70°	265.1	8.9
70°-80°	117.4	4.0
80°-90°	25.2	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°	1059.5	35.8
0°-40°	1628.5	55.0
0°-60°	2554.3	86.2
0°-90°	2962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1483	1481	1481	1479	1479	141
15°	1387	1387	1373	1359	1354	390
25°	1202	1195	1176	1134	1102	552
35°	975	968	921	851	830	610
45°	748	733	670	614	590	576
55°	520	504	457	403	382	466
65°	309	291	263	269	223	304
75°	124	115	108	103	113	133
85°	17	19	21	23	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1508.8	1508.8	1508.8	1508.8	1508.8
2.5°	1498.3	1498.3	1498.3	1496.6	1496.6
5°	1482.6	1480.9	1480.9	1479.2	1479.2
7.5°	1470.4	1468.7	1466.9	1465.2	1461.7
10°	1453.0	1453.0	1451.2	1442.5	1440.8
12.5°	1425.1	1423.3	1416.4	1404.1	1400.7
15°	1386.7	1386.7	1372.7	1358.8	1353.6
17.5°	1344.8	1343.1	1325.7	1311.7	1304.7
20°	1299.5	1296.0	1278.6	1255.9	1243.7
22.5°	1248.9	1248.9	1228.0	1198.3	1186.1
25°	1201.8	1194.8	1175.6	1133.8	1102.4
27.5°	1147.7	1137.3	1116.3	1057.0	1020.4
30°	1088.4	1083.2	1053.5	976.8	948.9
32.5°	1032.6	1023.9	992.5	912.3	889.6
35°	975.1	968.1	921.0	851.2	830.3
37.5°	917.5	908.8	849.5	793.6	767.5
40°	859.9	849.5	784.9	734.3	706.4
42.5°	805.9	791.9	729.1	675.0	643.6
45°	748.3	732.6	669.8	614.0	589.6
47.5°	690.7	676.8	619.2	561.7	533.8
50°	629.7	617.5	565.1	507.6	477.9
52.5°	579.1	559.9	509.3	451.8	427.3
55°	519.8	504.1	457.0	402.9	382.0
57.5°	465.7	450.0	406.4	355.8	338.4
60°	415.1	392.5	355.8	312.2	298.3
62.5°	359.3	341.9	310.5	273.9	291.3
65°	308.7	291.3	263.4	268.6	223.3
67.5°	252.9	244.2	219.8	195.4	188.4
70°	205.8	195.4	186.6	160.5	153.5
72.5°	164.0	153.5	141.3	127.3	122.1
75°	123.8	115.1	108.1	102.9	113.4
77.5°	85.5	82.0	76.7	71.5	69.8
80°	55.8	54.1	52.3	50.6	48.8
82.5°	33.1	33.1	33.1	33.1	33.1
85°	17.4	19.2	20.9	22.7	24.4
87.5°	10.5	10.5	12.2	14.0	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)