

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: P560667

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560667
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-82-94-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2872.0 lumens
Efficiency: N/A
Efficacy: 86.2 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

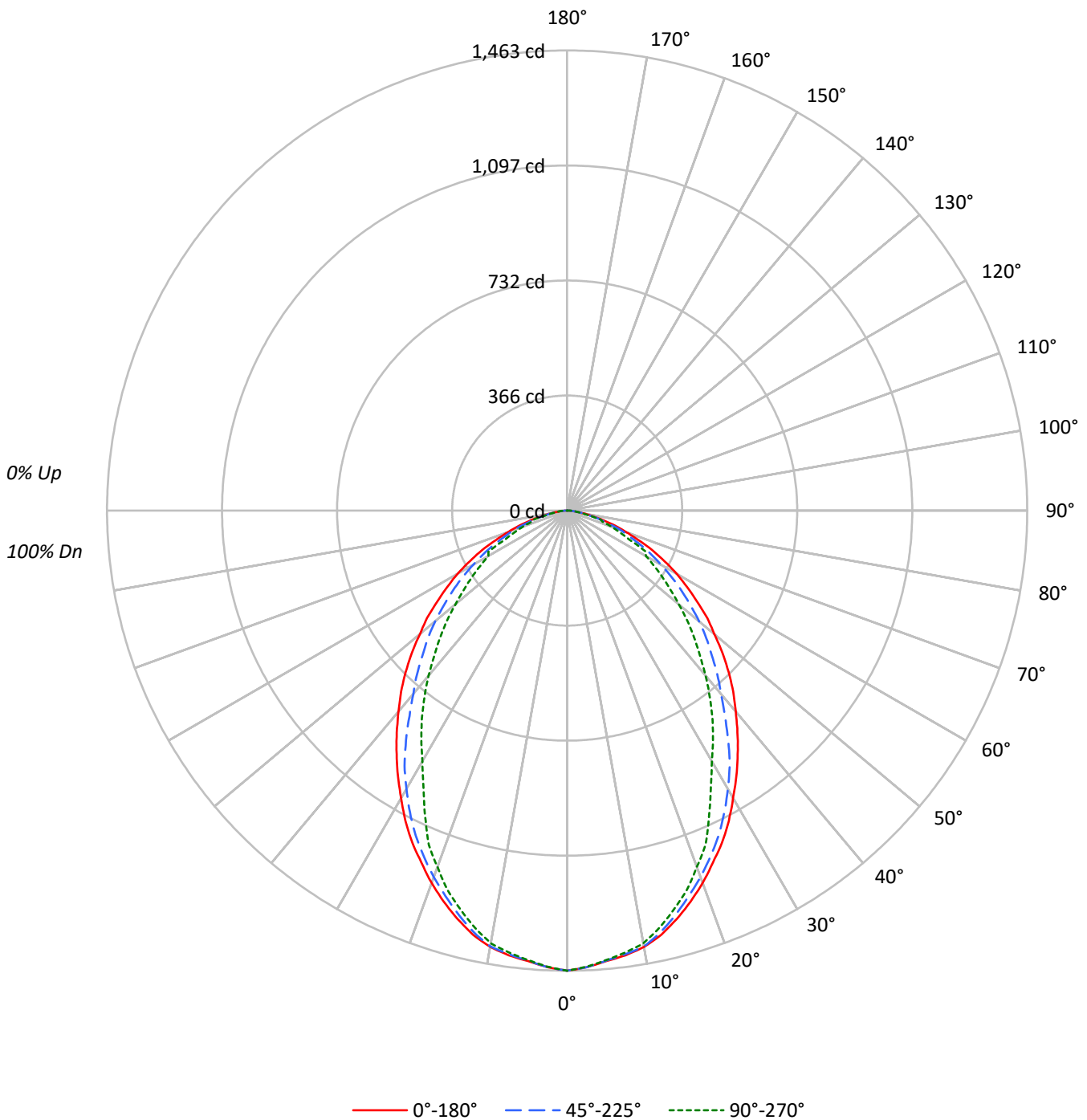
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7874	7874	7874
5°	7767	7757	7748
10°	7699	7690	7635
15°	7492	7416	7312
20°	7216	7100	6907
25°	6920	6769	6347
30°	6559	6348	5718
35°	6211	5867	5289
40°	5858	5347	4813
45°	5523	4943	4351
50°	5112	4588	3880
55°	4729	4158	3476
60°	4332	3714	3113
65°	3813	3252	2757
70°	3141	2848	2341
75°	2497	2181	2285
80°	1677	1571	1469
85°	1044	1254	1463

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.2	4.7
10°-20°	373.7	13.0
20°-30°	517.4	18.0
30°-40°	551.7	19.2
40°-50°	503.3	17.5
50°-60°	394.3	13.7
60°-70°	257.0	8.9
70°-80°	113.9	4.0
80°-90°	24.4	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°	1027.3	35.8
0°-40°	1579.1	55.0
0°-60°	2476.7	86.2
0°-90°	2872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1463	1463	1463	1463	1463	
5°	1438	1436	1436	1434	1434	136
15°	1345	1345	1331	1318	1312	378
25°	1165	1158	1140	1099	1069	535
35°	945	939	893	825	805	591
45°	726	710	650	595	572	559
55°	504	489	443	391	370	452
65°	299	282	255	260	216	295
75°	120	112	105	100	110	129
85°	17	19	20	22	24	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1463.0	1463.0	1463.0	1463.0	1463.0
2.5°	1452.8	1452.8	1452.8	1451.1	1451.1
5°	1437.6	1435.9	1435.9	1434.2	1434.2
7.5°	1425.8	1424.1	1422.4	1420.7	1417.3
10°	1408.8	1408.8	1407.1	1398.7	1397.0
12.5°	1381.8	1380.1	1373.3	1361.5	1358.1
15°	1344.6	1344.6	1331.0	1317.5	1312.4
17.5°	1304.0	1302.3	1285.4	1271.8	1265.1
20°	1260.0	1256.6	1239.7	1217.7	1205.9
22.5°	1211.0	1211.0	1190.7	1161.9	1150.1
25°	1165.3	1158.5	1139.9	1099.3	1068.9
27.5°	1112.9	1102.7	1082.4	1024.9	989.4
30°	1055.4	1050.3	1021.5	947.1	920.1
32.5°	1001.2	992.8	962.3	884.5	862.6
35°	945.4	938.7	893.0	825.3	805.0
37.5°	889.6	881.2	823.7	769.5	744.2
40°	833.8	823.7	761.1	712.0	685.0
42.5°	781.4	767.8	707.0	654.5	624.1
45°	725.6	710.3	649.5	595.3	571.7
47.5°	669.7	656.2	600.4	544.6	517.5
50°	610.6	598.7	548.0	492.2	463.4
52.5°	561.5	542.9	493.9	438.0	414.4
55°	504.0	488.8	443.1	390.7	370.4
57.5°	451.6	436.4	394.1	345.0	328.1
60°	402.5	380.5	345.0	302.7	289.2
62.5°	348.4	331.5	301.0	265.5	282.4
65°	299.4	282.4	255.4	260.5	216.5
67.5°	245.2	236.8	213.1	189.4	182.7
70°	199.6	189.4	181.0	155.6	148.8
72.5°	159.0	148.8	137.0	123.5	118.4
75°	120.1	111.6	104.9	99.8	109.9
77.5°	82.9	79.5	74.4	69.3	67.7
80°	54.1	52.4	50.7	49.0	47.4
82.5°	32.1	32.1	32.1	32.1	32.1
85°	16.9	18.6	20.3	22.0	23.7
87.5°	10.1	10.1	11.8	13.5	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)