

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: P559585

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-93-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559585
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-12-1-LD4-2STD-50-UNV-93-84-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1620.0 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

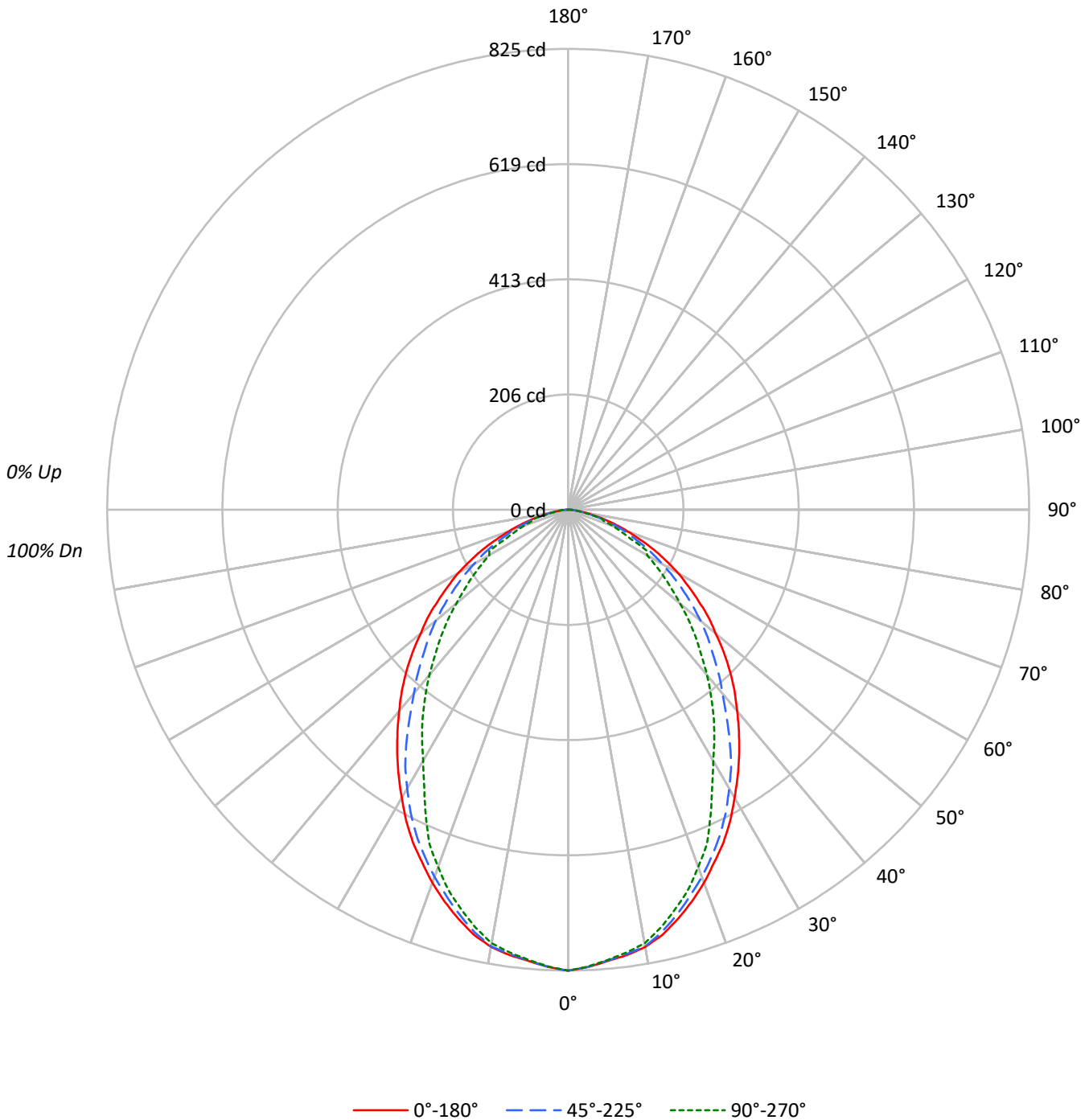
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	
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°	8882	8882	8882
5°	8762	8751	8741
10°	8686	8675	8613
15°	8451	8367	8250
20°	8141	8010	7791
25°	7807	7637	7160
30°	7399	7162	6451
35°	7008	6619	5967
40°	6608	6032	5429
45°	6231	5576	4909
50°	5767	5176	4377
55°	5335	4690	3920
60°	4889	4189	3511
65°	4302	3670	3110
70°	3544	3213	2644
75°	2816	2458	2578
80°	1891	1773	1655
85°	1173	1408	1655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6231 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.8	4.7
10°-20°	210.8	13.0
20°-30°	291.9	18.0
30°-40°	311.2	19.2
40°-50°	283.9	17.5
50°-60°	222.4	13.7
60°-70°	145.0	8.9
70°-80°	64.2	4.0
80°-90°	13.8	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°	579.5	35.8
0°-40°	890.7	55.0
0°-60°	1397.0	86.2
0°-90°	1620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	811	810	810	809	809	77
15°	758	758	751	743	740	213
25°	657	654	643	620	603	302
35°	533	530	504	466	454	333
45°	409	401	366	336	322	315
55°	284	276	250	220	209	255
65°	169	159	144	147	122	166
75°	68	63	59	56	62	73
85°	10	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.2	825.2	825.2	825.2	825.2
2.5°	819.5	819.5	819.5	818.5	818.5
5°	810.9	809.9	809.9	809.0	809.0
7.5°	804.2	803.3	802.3	801.4	799.4
10°	794.7	794.7	793.7	789.0	788.0
12.5°	779.4	778.5	774.6	768.0	766.1
15°	758.4	758.4	750.8	743.2	740.3
17.5°	735.5	734.6	725.0	717.4	713.6
20°	710.7	708.8	699.3	686.9	680.2
22.5°	683.1	683.1	671.6	655.4	648.7
25°	657.3	653.5	643.0	620.1	602.9
27.5°	627.7	622.0	610.6	578.1	558.1
30°	595.3	592.4	576.2	534.2	519.0
32.5°	564.8	560.0	542.8	498.9	486.5
35°	533.3	529.5	503.7	465.5	454.1
37.5°	501.8	497.0	464.6	434.1	419.8
40°	470.3	464.6	429.3	401.6	386.4
42.5°	440.7	433.1	398.8	369.2	352.0
45°	409.3	400.7	366.3	335.8	322.5
47.5°	377.8	370.2	338.7	307.2	291.9
50°	344.4	337.7	309.1	277.6	261.4
52.5°	316.7	306.2	278.6	247.1	233.7
55°	284.3	275.7	249.9	220.4	208.9
57.5°	254.7	246.1	222.3	194.6	185.1
60°	227.1	214.6	194.6	170.8	163.1
62.5°	196.5	187.0	169.8	149.8	159.3
65°	168.9	159.3	144.1	146.9	122.1
67.5°	138.3	133.6	120.2	106.8	103.0
70°	112.6	106.8	102.1	87.8	84.0
72.5°	89.7	84.0	77.3	69.6	66.8
75°	67.7	63.0	59.1	56.3	62.0
77.5°	46.7	44.8	42.0	39.1	38.2
80°	30.5	29.6	28.6	27.7	26.7
82.5°	18.1	18.1	18.1	18.1	18.1
85°	9.5	10.5	11.4	12.4	13.4
87.5°	5.7	5.7	6.7	7.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)