

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: P589852

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589852
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1HI-35-UNV-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2287.0 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

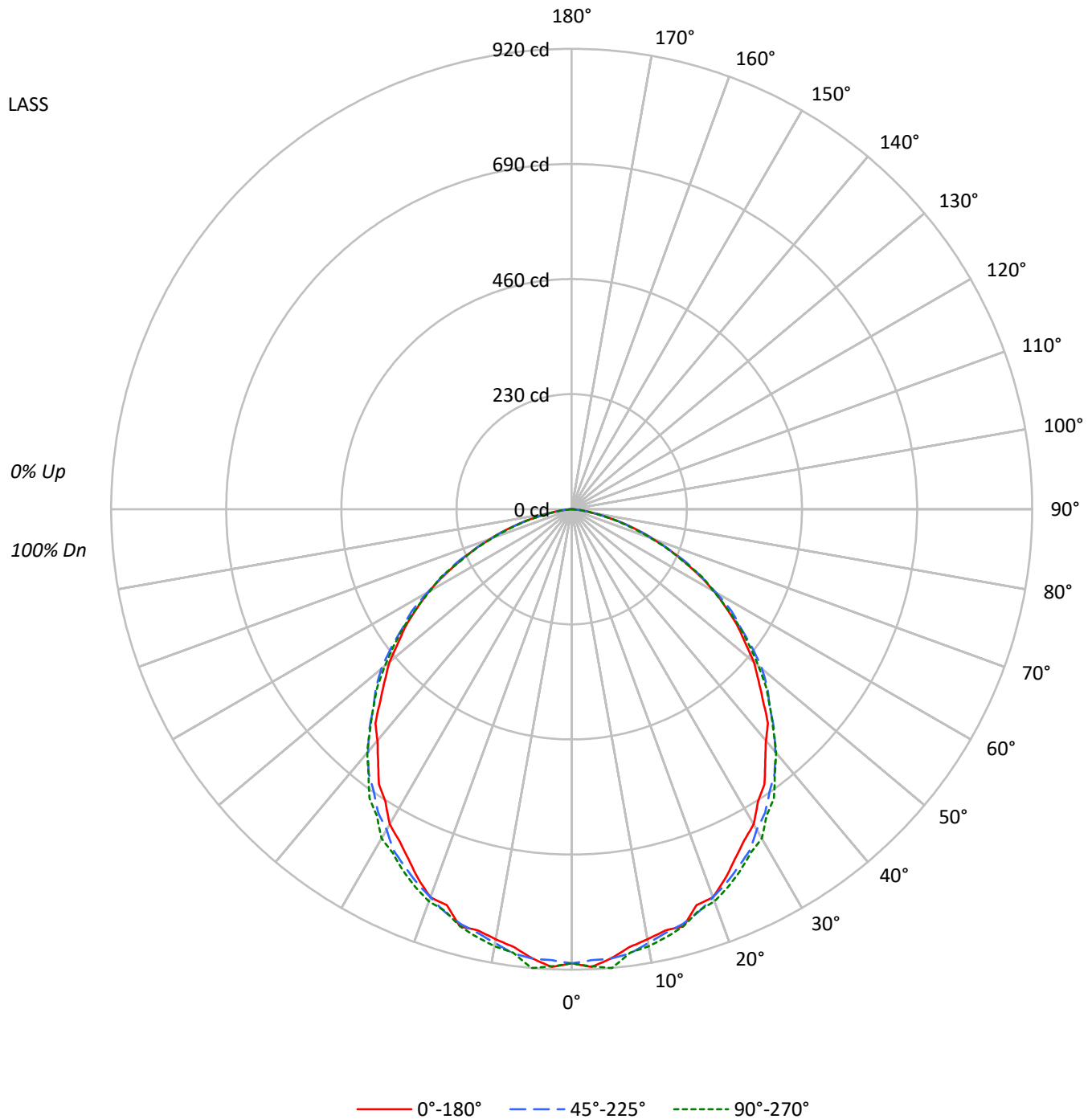
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2442	2442	2442
5°	2434	2435	2486
10°	2384	2405	2422
15°	2403	2390	2404
20°	2363	2363	2388
25°	2290	2340	2366
30°	2259	2298	2359
35°	2205	2263	2314
40°	2120	2222	2232
45°	2055	2128	2132
50°	1988	2078	2038
55°	1894	1931	1917
60°	1771	1789	1757
65°	1579	1620	1568
70°	1355	1360	1322
75°	1073	1071	1029
80°	719	699	673
85°	392	386	361

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2183 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	3.7
10°-20°	241.9	10.6
20°-30°	362.4	15.8
30°-40°	429.5	18.8
40°-50°	430.3	18.8
50°-60°	365.3	16.0
60°-70°	246.3	10.8
70°-80°	108.2	4.7
80°-90°	17.6	0.8
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°	689.7	30.2
0°-40°	1119.3	48.9
0°-60°	1914.9	83.7
0°-90°	2287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2287.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	901	899	901	899	920	85
15°	863	853	858	862	863	240
25°	771	776	788	798	797	357
35°	671	673	689	705	704	417
45°	540	550	559	574	560	418
55°	404	401	412	409	409	359
65°	248	245	254	245	246	247
75°	103	101	103	96	99	111
85°	13	12	12	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	907.4	907.4	907.4	907.4	907.4
2.5°	915.3	908.4	901.9	909.4	914.0
5°	901.0	898.9	901.3	898.6	920.3
7.5°	882.5	890.6	895.2	892.3	893.6
10°	872.6	869.8	880.2	887.5	886.5
12.5°	862.1	866.3	866.9	874.7	875.4
15°	862.7	852.7	858.0	862.4	862.8
17.5°	829.2	839.9	843.6	853.8	841.1
20°	825.1	817.2	825.1	835.5	833.8
22.5°	799.9	791.1	808.0	817.2	816.6
25°	771.3	775.5	788.2	798.5	796.8
27.5°	746.2	751.1	769.2	783.3	774.2
30°	726.9	724.4	739.6	752.3	759.3
32.5°	692.3	701.2	719.0	731.6	724.9
35°	671.3	673.3	688.9	704.8	704.4
37.5°	634.7	643.9	665.8	670.3	666.2
40°	603.4	612.6	632.4	637.2	635.3
42.5°	580.3	581.9	598.9	604.4	595.7
45°	540.1	550.2	559.3	573.7	560.2
47.5°	505.9	510.6	530.3	534.1	527.0
50°	474.9	476.5	496.3	491.5	486.8
52.5°	435.8	442.8	453.9	453.0	447.4
55°	403.7	401.0	411.6	408.8	408.7
57.5°	365.2	369.9	378.6	374.1	367.0
60°	329.1	329.2	332.4	327.4	326.4
62.5°	288.9	290.3	291.0	284.8	294.9
65°	248.0	244.8	254.4	244.6	246.3
67.5°	210.4	212.1	211.1	205.0	207.4
70°	172.2	174.3	172.8	165.9	168.0
72.5°	137.3	134.7	136.4	127.7	131.7
75°	103.2	101.1	103.0	95.7	99.0
77.5°	70.3	71.9	70.8	66.9	69.1
80°	46.4	45.1	45.1	42.9	43.4
82.5°	27.1	25.8	25.4	24.7	25.8
85°	12.7	12.3	12.5	12.2	11.7
87.5°	4.6	4.7	4.7	4.5	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)