

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: P590054

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-82-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590054
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-LD4-1STD-35-UNV-82-85-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1779.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

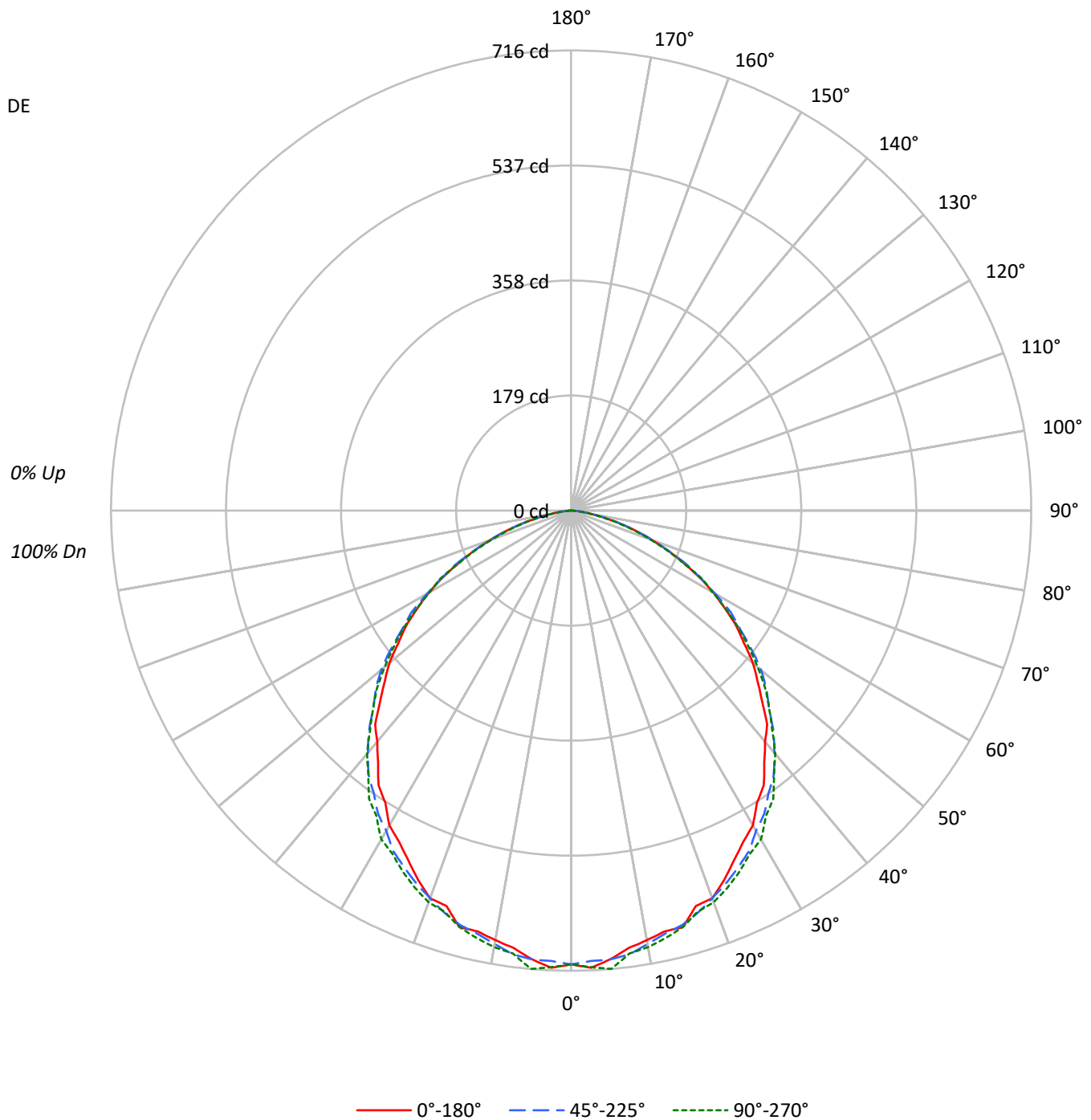
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	1900	1900	1900
5°	1893	1894	1934
10°	1855	1871	1884
15°	1869	1859	1870
20°	1838	1838	1857
25°	1781	1820	1840
30°	1757	1788	1835
35°	1715	1760	1800
40°	1649	1728	1736
45°	1599	1656	1658
50°	1546	1616	1585
55°	1474	1502	1491
60°	1378	1392	1366
65°	1228	1260	1220
70°	1054	1057	1028
75°	835	833	801
80°	559	544	522
85°	303	303	281

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1698 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	3.7
10°-20°	188.2	10.6
20°-30°	281.9	15.8
30°-40°	334.1	18.8
40°-50°	334.8	18.8
50°-60°	284.2	16.0
60°-70°	191.6	10.8
70°-80°	84.2	4.7
80°-90°	13.7	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°	536.5	30.2
0°-40°	870.6	48.9
0°-60°	1489.6	83.7
0°-90°	1779.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	701	699	701	699	716	66
15°	671	663	667	671	671	187
25°	600	603	613	621	620	277
35°	522	524	536	548	548	324
45°	420	428	435	446	436	325
55°	314	312	320	318	318	279
65°	193	190	198	190	192	192
75°	80	79	80	74	77	86
85°	10	10	10	10	9	14
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.9	705.9	705.9	705.9	705.9
2.5°	712.0	706.6	701.6	707.4	711.0
5°	700.8	699.2	701.1	699.0	715.9
7.5°	686.4	692.7	696.4	694.1	695.1
10°	678.8	676.6	684.7	690.4	689.5
12.5°	670.6	673.9	674.3	680.4	681.0
15°	671.0	663.3	667.4	670.9	671.1
17.5°	645.0	653.4	656.2	664.1	654.3
20°	641.8	635.7	641.8	649.9	648.6
22.5°	622.2	615.4	628.5	635.7	635.2
25°	600.0	603.2	613.1	621.1	619.8
27.5°	580.5	584.3	598.3	609.3	602.2
30°	565.4	563.5	575.4	585.2	590.7
32.5°	538.5	545.5	559.3	569.1	563.9
35°	522.2	523.8	535.9	548.3	547.9
37.5°	493.7	500.9	517.9	521.4	518.2
40°	469.4	476.6	492.0	495.7	494.1
42.5°	451.4	452.7	465.9	470.2	463.3
45°	420.1	428.0	435.1	446.3	435.7
47.5°	393.5	397.2	412.5	415.5	409.9
50°	369.4	370.7	386.1	382.3	378.7
52.5°	339.0	344.4	353.1	352.3	348.1
55°	314.1	312.0	320.2	318.0	317.9
57.5°	284.1	287.7	294.5	291.0	285.4
60°	256.0	256.1	258.6	254.6	253.9
62.5°	224.7	225.8	226.4	221.6	229.4
65°	192.9	190.4	197.9	190.3	191.6
67.5°	163.7	165.0	164.2	159.5	161.3
70°	134.0	135.6	134.4	129.1	130.7
72.5°	106.8	104.8	106.1	99.3	102.4
75°	80.3	78.7	80.1	74.5	77.0
77.5°	54.7	56.0	55.0	52.0	53.8
80°	36.1	35.1	35.1	33.4	33.7
82.5°	21.1	20.1	19.8	19.2	20.1
85°	9.8	9.6	9.8	9.5	9.1
87.5°	3.6	3.6	3.6	3.5	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)