

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: P590925

Luminaire Tested: FSR-24-2-LD4-4STD-35-UNV-93-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590925
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-LD4-4STD-35-UNV-93-84-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7820.0 lumens
Efficiency: N/A
Efficacy: 117.4 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

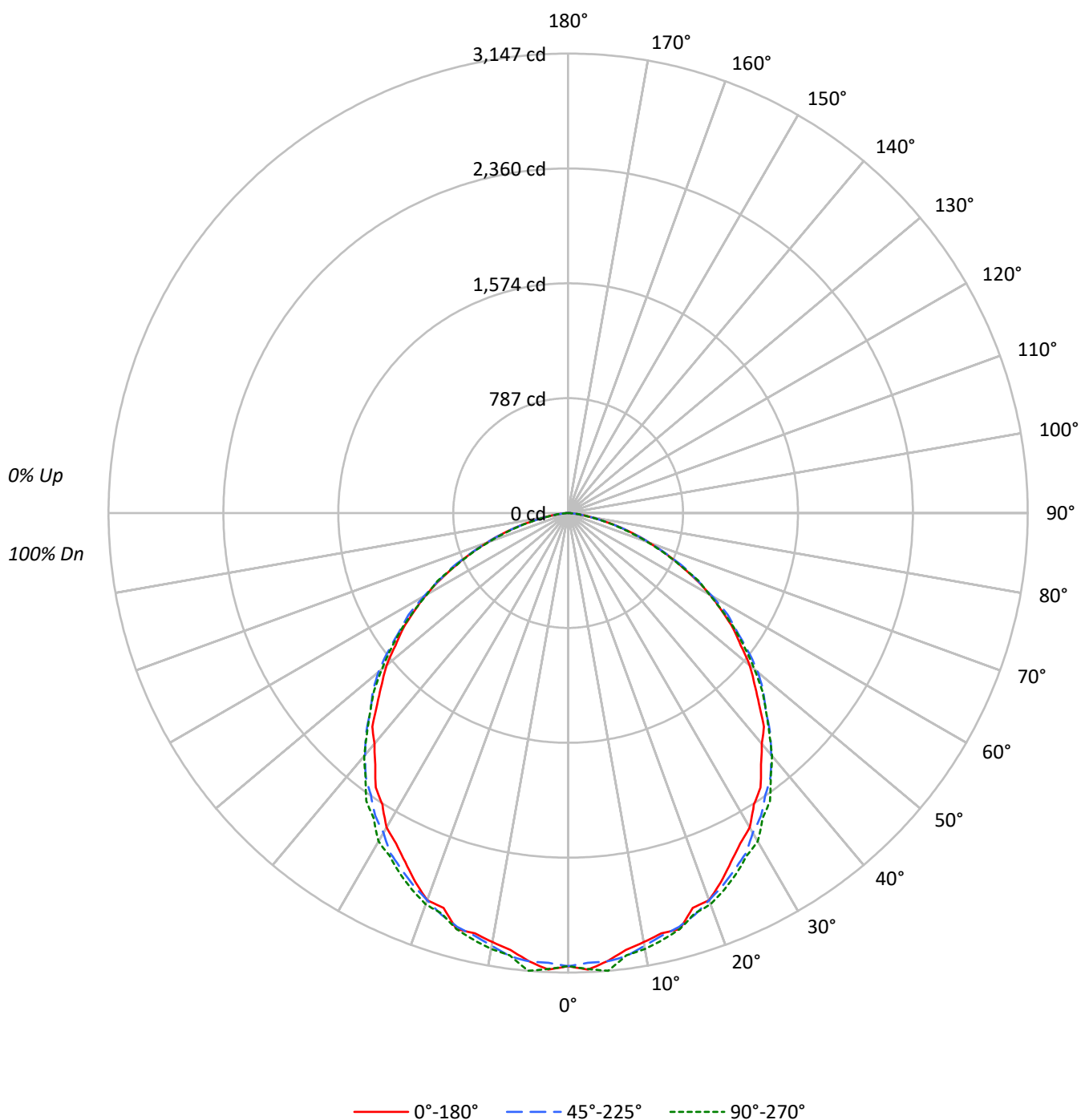
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88
2	100	93	86	81	98	91	85	80		87	82	78		84	80	76		81	78	75
3	92	82	74	68	89	80	73	67		77	71	66		75	69	65		72	68	64
4	84	73	64	58	82	71	64	58		69	62	57		67	61	56		65	59	55
5	78	65	57	50	76	64	56	50		62	55	49		60	54	49		58	53	48
6	72	59	50	44	70	58	50	44		56	49	43		54	48	43		53	47	43
7	67	53	45	39	65	53	45	39		51	44	39		50	43	38		48	42	38
8	62	49	41	35	61	48	40	35		47	40	34		46	39	34		44	39	34
9	58	45	37	31	57	44	37	31		43	36	31		42	36	31		41	35	31
10	54	41	34	29	53	41	33	28		40	33	28		39	33	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8350	8350	8350
5°	8322	8325	8500
10°	8153	8224	8282
15°	8218	8173	8219
20°	8079	8079	8165
25°	7831	8002	8090
30°	7723	7859	8068
35°	7541	7738	7912
40°	7248	7596	7630
45°	7028	7278	7289
50°	6797	7104	6969
55°	6477	6603	6556
60°	6056	6117	6007
65°	5400	5538	5362
70°	4633	4649	4520
75°	3669	3661	3519
80°	2458	2390	2297
85°	1337	1325	1238

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 7466 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.9	3.7
10°-20°	827.2	10.6
20°-30°	1239.3	15.8
30°-40°	1468.8	18.8
40°-50°	1471.5	18.8
50°-60°	1249.1	16.0
60°-70°	842.1	10.8
70°-80°	370.0	4.7
80°-90°	60.1	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°	2358.3	30.2
0°-40°	3827.1	48.9
0°-60°	6547.7	83.7
0°-90°	7820.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7820.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3103	3103	3103	3103	3103	
5°	3081	3074	3082	3073	3147	290
15°	2950	2916	2934	2949	2950	822
25°	2637	2652	2695	2730	2725	1219
35°	2296	2302	2356	2410	2408	1425
45°	1847	1881	1912	1962	1915	1429
55°	1380	1371	1407	1398	1397	1228
65°	848	837	870	836	842	843
75°	353	346	352	327	338	378
85°	43	42	43	42	40	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3102.8	3102.8	3102.8	3102.8	3102.8
2.5°	3129.6	3106.0	3083.9	3109.6	3125.2
5°	3080.7	3073.5	3081.9	3072.7	3146.8
7.5°	3017.4	3045.1	3061.1	3051.1	3055.5
10°	2983.8	2974.2	3009.8	3034.7	3031.1
12.5°	2947.7	2962.2	2964.2	2991.0	2993.4
15°	2949.7	2915.7	2933.7	2948.9	2950.1
17.5°	2835.2	2872.0	2884.4	2919.3	2876.0
20°	2821.1	2794.3	2821.1	2856.8	2851.2
22.5°	2735.0	2705.0	2762.7	2794.3	2792.3
25°	2637.3	2651.7	2695.0	2730.2	2724.6
27.5°	2551.5	2568.4	2630.1	2678.5	2647.3
30°	2485.4	2477.0	2529.1	2572.4	2596.4
32.5°	2367.2	2397.7	2458.6	2501.5	2478.6
35°	2295.5	2302.3	2355.6	2410.1	2408.5
37.5°	2170.1	2201.8	2276.7	2291.9	2277.9
40°	2063.2	2094.8	2162.5	2179.0	2172.1
42.5°	1984.3	1989.9	2048.0	2066.8	2036.7
45°	1846.8	1881.3	1912.5	1961.8	1915.3
47.5°	1729.9	1745.9	1813.2	1826.4	1802.0
50°	1623.7	1629.3	1697.0	1680.6	1664.6
52.5°	1490.3	1513.9	1552.0	1548.8	1530.0
55°	1380.5	1371.3	1407.4	1397.8	1397.4
57.5°	1248.7	1264.7	1294.4	1279.2	1254.7
60°	1125.3	1125.7	1136.6	1119.3	1116.1
62.5°	987.9	992.7	995.1	973.9	1008.4
65°	848.1	836.9	869.7	836.5	842.1
67.5°	719.5	725.1	721.9	701.1	709.1
70°	588.9	596.1	590.9	567.3	574.5
72.5°	469.5	460.7	466.3	436.7	450.3
75°	352.9	345.7	352.1	327.3	338.5
77.5°	240.4	246.0	242.0	228.8	236.4
80°	158.6	154.2	154.2	146.6	148.2
82.5°	92.5	88.1	86.9	84.5	88.1
85°	43.3	42.1	42.9	41.7	40.1
87.5°	15.6	16.0	16.0	15.2	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)