

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: P562898

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562898
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-24-4-LD4-2STD-35-UNV-82-85-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5953.0 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

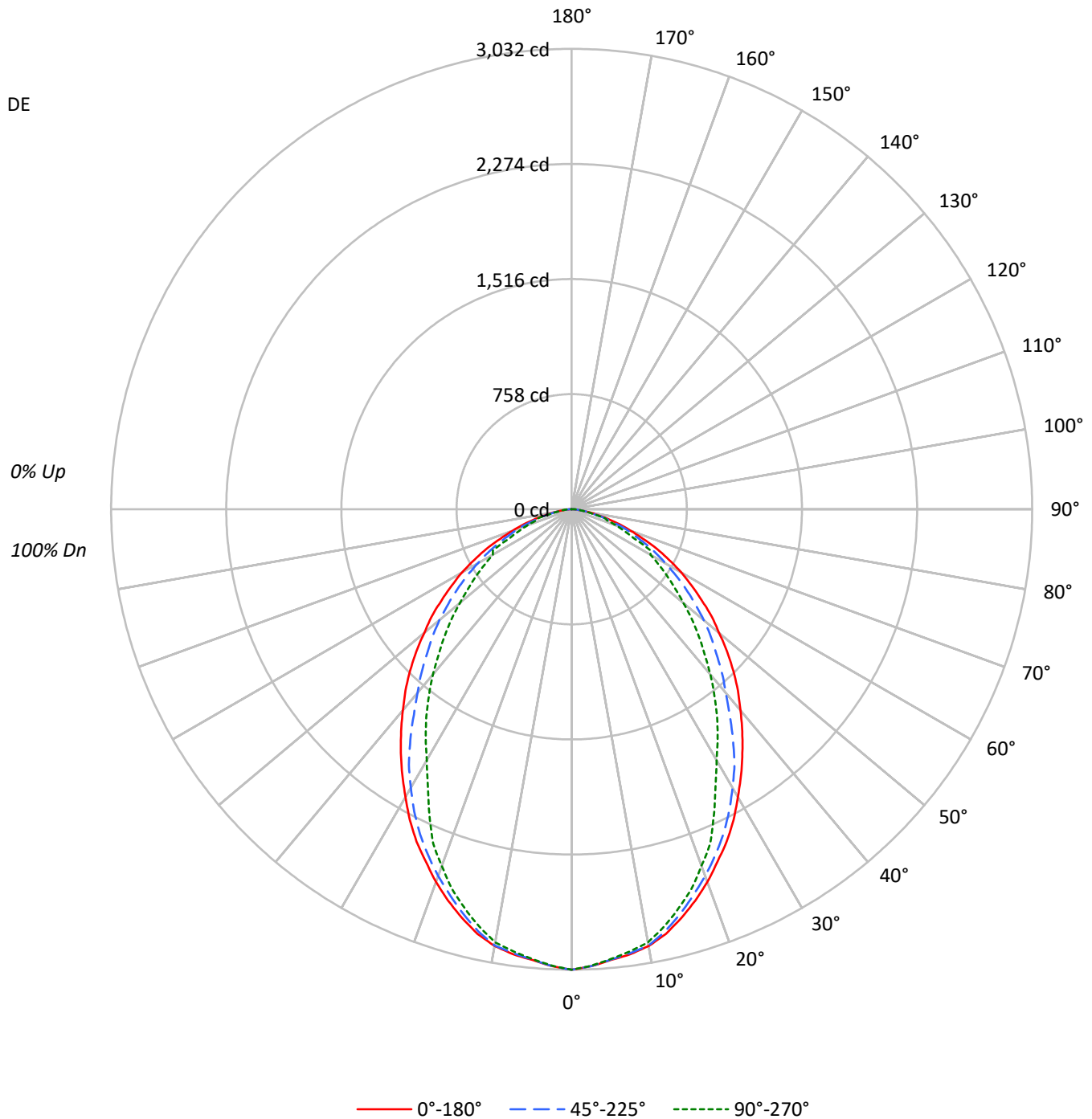
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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				
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°	4080	4080	4080
5°	4025	4020	4015
10°	3990	3985	3956
15°	3882	3843	3789
20°	3740	3679	3579
25°	3586	3508	3289
30°	3399	3290	2963
35°	3219	3040	2741
40°	3036	2771	2494
45°	2862	2562	2255
50°	2649	2377	2011
55°	2451	2155	1801
60°	2245	1925	1613
65°	1975	1685	1429
70°	1627	1476	1214
75°	1294	1130	1185
80°	869	815	761
85°	542	650	758

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2862 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.3	4.7
10°-20°	774.7	13.0
20°-30°	1072.5	18.0
30°-40°	1143.6	19.2
40°-50°	1043.3	17.5
50°-60°	817.3	13.7
60°-70°	532.7	8.9
70°-80°	236.0	4.0
80°-90°	50.7	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°	2129.4	35.8
0°-40°	3273.0	55.0
0°-60°	5133.6	86.2
0°-90°	5953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3032	3032	3032	3032	3032	
5°	2980	2976	2976	2973	2973	283
15°	2787	2787	2759	2731	2720	783
25°	2415	2401	2363	2279	2216	1109
35°	1960	1946	1851	1711	1669	1225
45°	1504	1472	1346	1234	1185	1158
55°	1045	1013	918	810	768	937
65°	620	585	529	540	449	612
75°	249	231	217	207	228	267
85°	35	39	42	46	49	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3032.4	3032.4	3032.4	3032.4	3032.4
2.5°	3011.3	3011.3	3011.3	3007.8	3007.8
5°	2979.8	2976.3	2976.3	2972.8	2972.8
7.5°	2955.3	2951.7	2948.2	2944.7	2937.7
10°	2920.2	2920.2	2916.7	2899.2	2895.7
12.5°	2864.1	2860.6	2846.6	2822.0	2815.0
15°	2787.0	2787.0	2758.9	2730.9	2720.4
17.5°	2702.8	2699.3	2664.3	2636.2	2622.2
20°	2611.7	2604.7	2569.6	2524.1	2499.5
22.5°	2510.0	2510.0	2468.0	2408.4	2383.8
25°	2415.4	2401.4	2362.8	2278.7	2215.6
27.5°	2306.7	2285.7	2243.6	2124.4	2050.8
30°	2187.5	2177.0	2117.4	1963.2	1907.1
32.5°	2075.3	2057.8	1994.7	1833.4	1787.9
35°	1959.7	1945.6	1851.0	1710.8	1668.7
37.5°	1844.0	1826.4	1707.2	1595.1	1542.5
40°	1728.3	1707.2	1577.5	1475.9	1419.8
42.5°	1619.6	1591.6	1465.4	1356.7	1293.6
45°	1503.9	1472.4	1346.2	1234.0	1184.9
47.5°	1388.2	1360.2	1244.5	1128.8	1072.7
50°	1265.5	1241.0	1135.8	1020.1	960.5
52.5°	1163.9	1125.3	1023.6	908.0	858.9
55°	1044.7	1013.1	918.5	809.8	767.7
57.5°	936.0	904.5	816.8	715.2	680.1
60°	834.3	788.8	715.2	627.5	599.5
62.5°	722.2	687.1	624.0	550.4	585.4
65°	620.5	585.4	529.4	539.9	448.7
67.5°	508.3	490.8	441.7	392.6	378.6
70°	413.7	392.6	375.1	322.5	308.5
72.5°	329.5	308.5	284.0	255.9	245.4
75°	248.9	231.4	217.3	206.8	227.9
77.5°	171.8	164.8	154.2	143.7	140.2
80°	112.2	108.7	105.2	101.7	98.2
82.5°	66.6	66.6	66.6	66.6	66.6
85°	35.1	38.6	42.1	45.6	49.1
87.5°	21.0	21.0	24.5	28.0	31.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)