

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: P973796

Luminaire Tested: FLR2-22-45HE-L930-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973796
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-22-45HE-L930-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

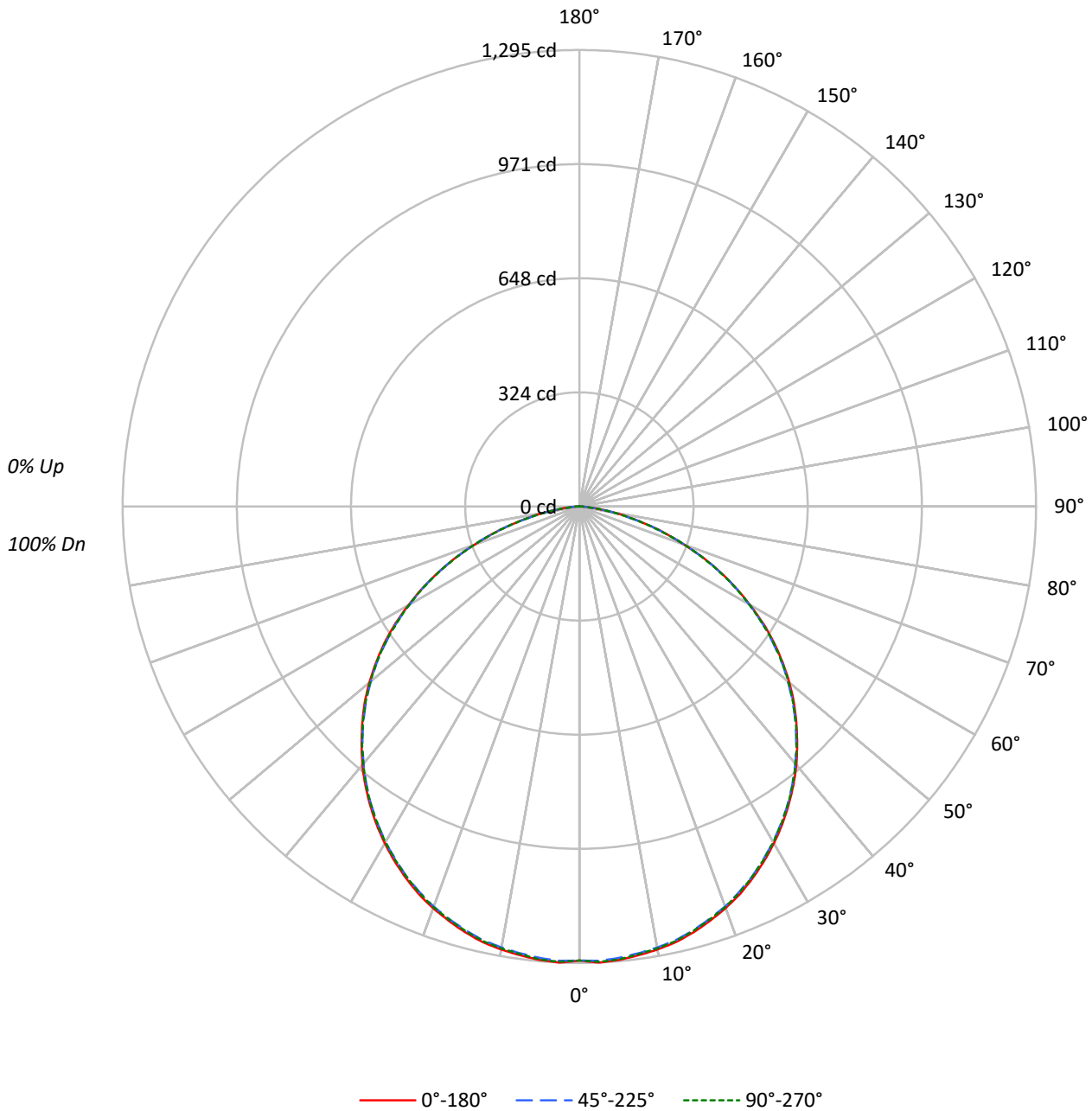
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3602.6 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 36.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor:
Total Harmonic Distortion (THDi):
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
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										
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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85					85															
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71															
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60					60															
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51															
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44					44															
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39					39															
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34					34															
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30					30															
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27					27															
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25					25															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3467	3467	3467
5°	3488	3473	3484
10°	3487	3472	3479
15°	3485	3469	3474
20°	3472	3459	3464
25°	3454	3440	3442
30°	3429	3415	3417
35°	3398	3385	3388
40°	3362	3346	3348
45°	3313	3298	3304
50°	3255	3231	3238
55°	3162	3136	3147
60°	3006	2993	2993
65°	2807	2802	2791
70°	2485	2498	2492
75°	2093	2076	2060
80°	1505	1480	1468
85°	787	787	763

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3313 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.0	3.4
10°-20°	350.8	9.7
20°-30°	533.1	14.8
30°-40°	644.3	17.9
40°-50°	668.8	18.6
50°-60°	597.9	16.6
60°-70°	434.7	12.1
70°-80°	213.8	5.9
80°-90°	37.1	1.0
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°	1005.9	27.9
0°-40°	1650.2	45.8
0°-60°	2917.0	81.0
0°-90°	3602.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3602.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1291	1276	1286	1281	1290	123
15°	1251	1236	1245	1242	1247	353
25°	1163	1151	1158	1156	1159	536
35°	1034	1027	1030	1031	1031	647
45°	870	866	866	868	868	671
55°	674	670	668	670	671	601
65°	441	442	440	440	438	435
75°	201	203	200	200	198	214
85°	26	26	26	26	25	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1288.2	1288.2	1288.2	1288.2	1288.2
2.5°	1295.4	1280.3	1289.8	1284.3	1293.0
5°	1291.4	1276.3	1285.8	1281.1	1289.8
7.5°	1284.3	1269.1	1278.7	1273.9	1281.1
10°	1276.3	1260.4	1270.7	1266.0	1273.1
12.5°	1266.0	1250.8	1260.4	1256.4	1262.8
15°	1250.8	1236.5	1245.3	1242.1	1246.9
17.5°	1232.5	1218.2	1227.0	1224.6	1228.6
20°	1212.6	1199.1	1207.9	1205.5	1209.5
22.5°	1190.4	1176.0	1184.0	1182.4	1185.6
25°	1163.3	1150.6	1158.5	1156.1	1159.3
27.5°	1134.7	1122.7	1129.1	1129.1	1130.7
30°	1103.6	1092.5	1098.9	1098.9	1099.7
32.5°	1070.2	1061.5	1065.4	1066.2	1066.2
35°	1034.4	1027.2	1030.4	1031.2	1031.2
37.5°	997.0	989.8	992.2	993.8	993.8
40°	957.2	950.9	952.4	954.0	953.2
42.5°	914.3	909.5	910.3	911.9	911.9
45°	870.5	866.5	866.5	868.1	868.1
47.5°	825.9	822.0	820.4	822.0	822.0
50°	777.4	773.4	771.8	773.4	773.4
52.5°	726.5	722.5	722.5	722.5	723.3
55°	674.0	670.0	668.4	670.0	670.8
57.5°	618.3	616.7	614.3	615.1	612.7
60°	558.6	558.6	556.2	557.8	556.2
62.5°	500.5	502.1	499.7	499.7	498.1
65°	440.8	442.4	440.0	440.0	438.4
67.5°	379.5	381.9	378.8	378.8	377.2
70°	315.9	320.7	317.5	318.3	316.7
72.5°	258.6	261.0	257.8	257.8	256.2
75°	201.3	202.9	199.7	200.5	198.1
77.5°	144.8	147.2	144.0	144.8	144.0
80°	97.1	97.9	95.5	96.3	94.7
82.5°	56.5	57.3	56.5	55.7	54.9
85°	25.5	26.3	25.5	25.5	24.7
87.5°	6.4	6.4	6.4	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)