

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: P974030

Luminaire Tested: FLR2-22-45HE-L950-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974030
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-L950-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

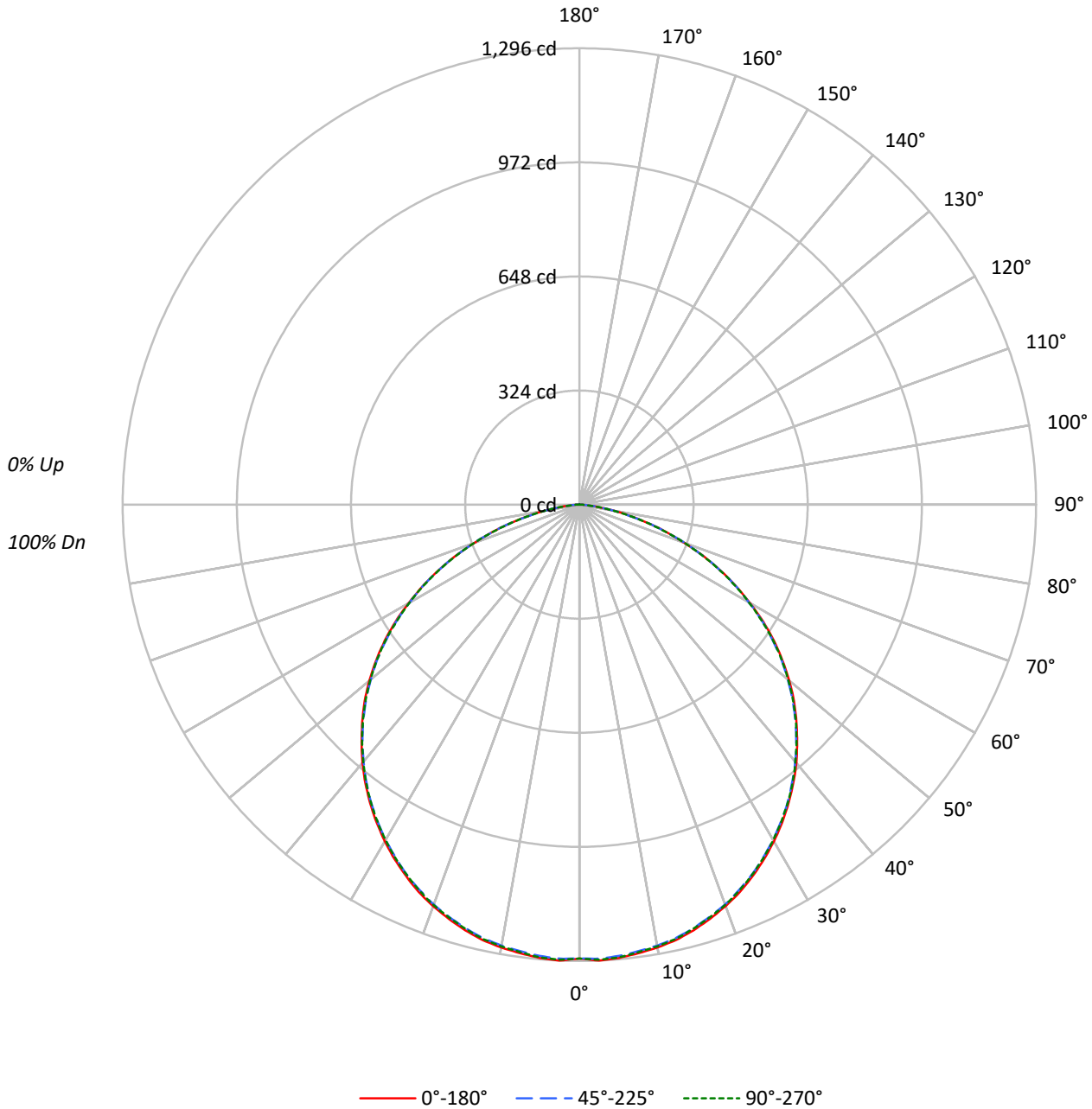
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3604.8 lumens
Efficiency: N/A
Efficacy: 99.6 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°	3469	3469	3469
5°	3491	3475	3486
10°	3490	3474	3481
15°	3487	3471	3476
20°	3475	3461	3466
25°	3456	3442	3444
30°	3431	3416	3419
35°	3400	3387	3390
40°	3365	3348	3351
45°	3315	3299	3306
50°	3257	3233	3240
55°	3164	3138	3149
60°	3008	2995	2995
65°	2809	2804	2793
70°	2487	2500	2493
75°	2094	2077	2061
80°	1505	1480	1468
85°	787	787	763

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3315 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	3.4
10°-20°	351.0	9.7
20°-30°	533.4	14.8
30°-40°	644.7	17.9
40°-50°	669.2	18.6
50°-60°	598.3	16.6
60°-70°	435.0	12.1
70°-80°	213.9	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°	1006.5	27.9
0°-40°	1651.2	45.8
0°-60°	2918.8	81.0
0°-90°	3604.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1289	1289	1289	1289	1289	
5°	1292	1277	1287	1282	1291	123
15°	1252	1237	1246	1243	1248	353
25°	1164	1151	1159	1157	1160	537
35°	1035	1028	1031	1032	1032	648
45°	871	867	867	869	869	672
55°	674	670	669	670	671	601
65°	441	443	440	440	439	435
75°	201	203	200	201	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°	1289.0	1289.0	1289.0	1289.0	1289.0
2.5°	1296.2	1281.1	1290.6	1285.0	1293.8
5°	1292.2	1277.1	1286.6	1281.9	1290.6
7.5°	1285.0	1269.9	1279.5	1274.7	1281.9
10°	1277.1	1261.2	1271.5	1266.7	1273.9
12.5°	1266.7	1251.6	1261.2	1257.2	1263.5
15°	1251.6	1237.3	1246.0	1242.8	1247.6
17.5°	1233.3	1219.0	1227.7	1225.3	1229.3
20°	1213.4	1199.8	1208.6	1206.2	1210.2
22.5°	1191.1	1176.8	1184.7	1183.1	1186.3
25°	1164.0	1151.3	1159.2	1156.9	1160.0
27.5°	1135.4	1123.4	1129.8	1129.8	1131.4
30°	1104.3	1093.2	1099.5	1099.5	1100.3
32.5°	1070.9	1062.1	1066.1	1066.9	1066.9
35°	1035.0	1027.9	1031.1	1031.9	1031.9
37.5°	997.6	990.5	992.8	994.4	994.4
40°	957.8	951.4	953.0	954.6	953.8
42.5°	914.8	910.0	910.8	912.4	912.4
45°	871.0	867.0	867.0	868.6	868.6
47.5°	826.4	822.5	820.9	822.5	822.5
50°	777.9	773.9	772.3	773.9	773.9
52.5°	726.9	722.9	722.9	722.9	723.7
55°	674.4	670.4	668.8	670.4	671.2
57.5°	618.6	617.0	614.7	615.4	613.1
60°	558.9	558.9	556.5	558.1	556.5
62.5°	500.8	502.4	500.0	500.0	498.4
65°	441.1	442.7	440.3	440.3	438.7
67.5°	379.8	382.2	379.0	379.0	377.4
70°	316.1	320.9	317.7	318.5	316.9
72.5°	258.8	261.1	258.0	258.0	256.4
75°	201.4	203.0	199.8	200.6	198.2
77.5°	144.9	147.3	144.1	144.9	144.1
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)