

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: P973946

Luminaire Tested: FLR2-22-45HE-L940-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973946
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-L940-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

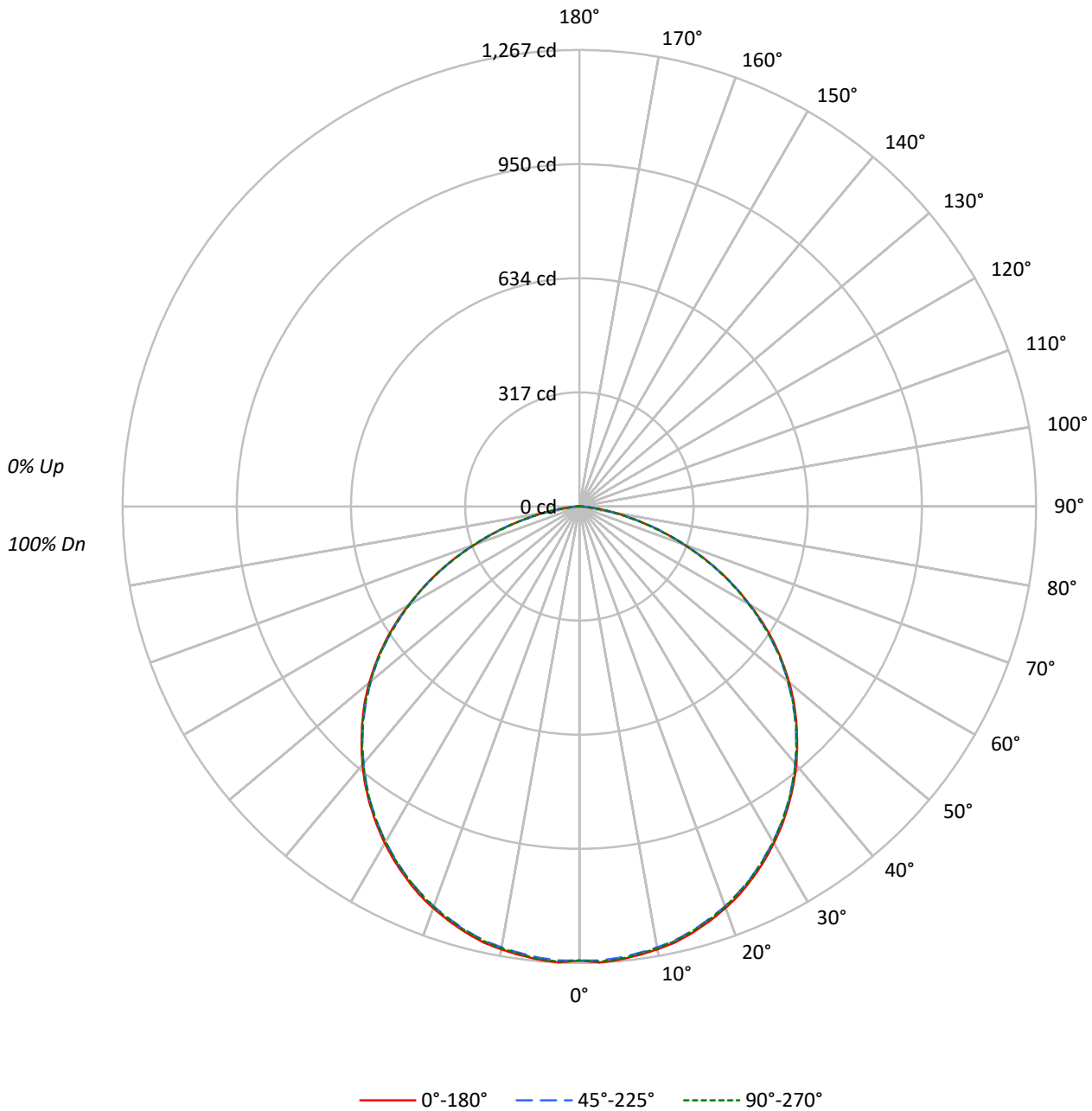
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3523.8 lumens
Efficiency: N/A
Efficacy: 97.3 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

TEST NUMBER: P973946
CATALOG NUMBER: FLR2-22-45HE-L940-CP187

Luminous Intensity Polar Plot





TEST NUMBER: P973946
 CATALOG NUMBER: FLR2-22-45HE-L940-CP187

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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3391	3391	3391
5°	3412	3397	3408
10°	3411	3396	3403
15°	3409	3393	3398
20°	3397	3383	3388
25°	3379	3365	3367
30°	3354	3340	3342
35°	3324	3311	3314
40°	3289	3273	3275
45°	3240	3226	3231
50°	3183	3160	3167
55°	3093	3067	3078
60°	2941	2928	2928
65°	2746	2741	2730
70°	2431	2443	2437
75°	2047	2032	2015
80°	1472	1447	1435
85°	769	769	744

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3240 cd/sqm



TEST NUMBER: P973946
 CATALOG NUMBER: FLR2-22-45HE-L940-CP187

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.3	3.4
10°-20°	343.1	9.7
20°-30°	521.4	14.8
30°-40°	630.3	17.9
40°-50°	654.2	18.6
50°-60°	584.9	16.6
60°-70°	425.2	12.1
70°-80°	209.1	5.9
80°-90°	36.3	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°	983.9	27.9
0°-40°	1614.1	45.8
0°-60°	2853.2	81.0
0°-90°	3523.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3523.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1263	1248	1258	1253	1262	120
15°	1224	1210	1218	1215	1220	345
25°	1138	1125	1133	1131	1134	524
35°	1012	1005	1008	1009	1009	633
45°	852	848	848	849	849	657
55°	659	655	654	655	656	588
65°	431	433	430	430	429	425
75°	197	198	195	196	194	209
85°	25	26	25	25	24	36
90°	0	0	0	0	0	



TEST NUMBER: P973946
 CATALOG NUMBER: FLR2-22-45HE-L940-CP187

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1260.1	1260.1	1260.1	1260.1	1260.1
2.5°	1267.1	1252.3	1261.6	1256.2	1264.7
5°	1263.2	1248.4	1257.7	1253.0	1261.6
7.5°	1256.2	1241.4	1250.7	1246.0	1253.0
10°	1248.4	1232.8	1242.9	1238.3	1245.3
12.5°	1238.3	1223.5	1232.8	1228.9	1235.1
15°	1223.5	1209.5	1218.0	1214.9	1219.6
17.5°	1205.6	1191.6	1200.1	1197.8	1201.7
20°	1186.1	1172.9	1181.4	1179.1	1183.0
22.5°	1164.3	1150.3	1158.1	1156.5	1159.7
25°	1137.9	1125.4	1133.2	1130.9	1134.0
27.5°	1109.8	1098.2	1104.4	1104.4	1106.0
30°	1079.5	1068.6	1074.8	1074.8	1075.6
32.5°	1046.8	1038.2	1042.1	1042.9	1042.9
35°	1011.8	1004.8	1007.9	1008.7	1008.7
37.5°	975.2	968.2	970.5	972.1	972.1
40°	936.3	930.1	931.6	933.2	932.4
42.5°	894.3	889.6	890.4	891.9	891.9
45°	851.5	847.6	847.6	849.1	849.1
47.5°	807.9	804.0	802.4	804.0	804.0
50°	760.4	756.5	754.9	756.5	756.5
52.5°	710.6	706.7	706.7	706.7	707.5
55°	659.2	655.3	653.8	655.3	656.1
57.5°	604.7	603.2	600.8	601.6	599.3
60°	546.4	546.4	544.0	545.6	544.0
62.5°	489.5	491.1	488.8	488.8	487.2
65°	431.2	432.7	430.4	430.4	428.8
67.5°	371.2	373.6	370.5	370.5	368.9
70°	309.0	313.7	310.5	311.3	309.8
72.5°	252.9	255.3	252.2	252.2	250.6
75°	196.9	198.5	195.4	196.1	193.8
77.5°	141.6	144.0	140.9	141.6	140.9
80°	95.0	95.7	93.4	94.2	92.6
82.5°	55.3	56.0	55.3	54.5	53.7
85°	24.9	25.7	24.9	24.9	24.1
87.5°	6.2	6.2	6.2	6.2	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)