

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055567

Luminaire Tested: S123R3DR-S1000D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055567
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1000D935-X4F0-XX-UDD-F-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

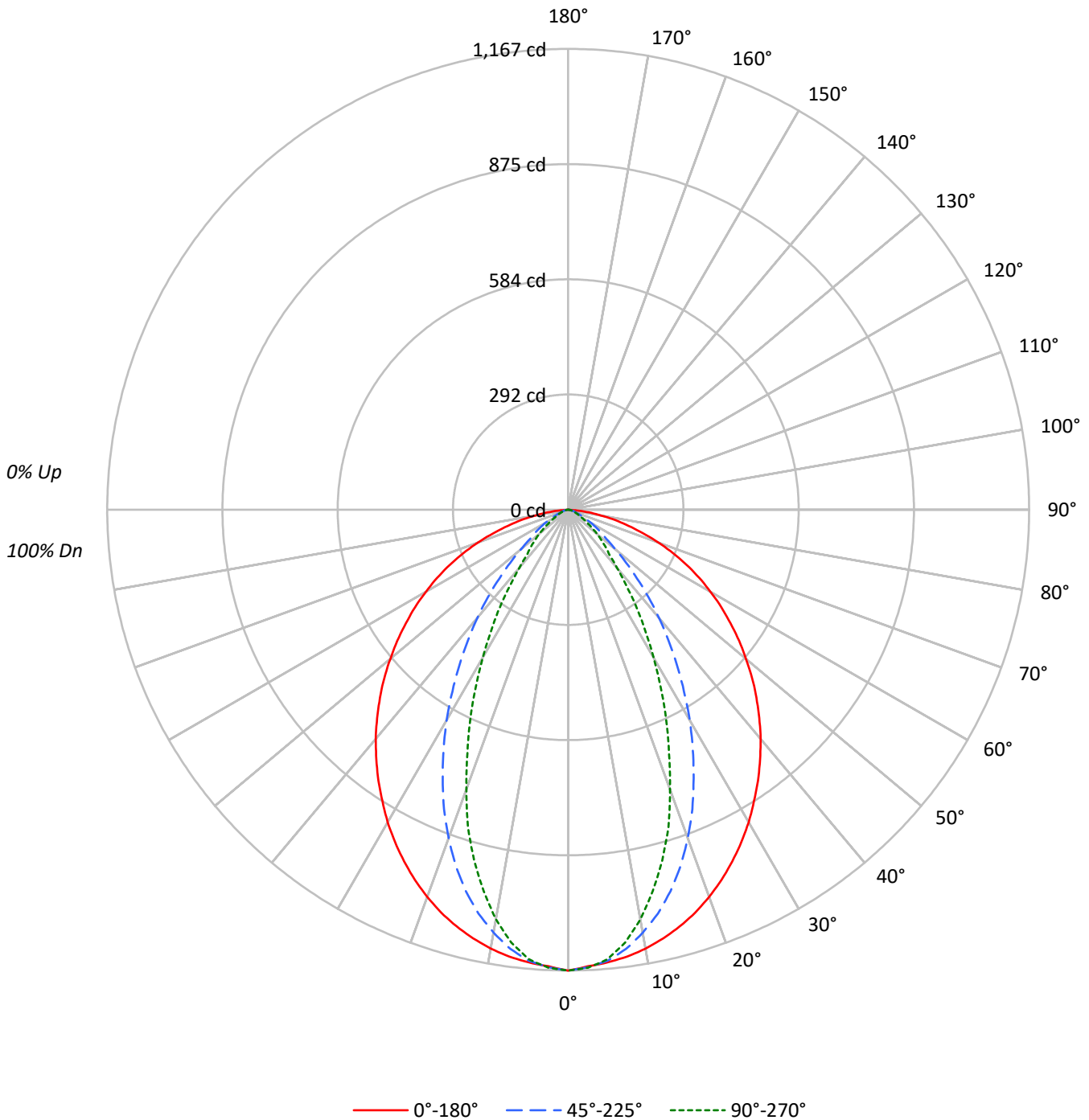
Lumens per Lamp: N/A
Luminaire Lumens: 1623.4 lumens
Efficiency: N/A
Efficacy: 46.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14073	14073	14073
5°	13926	13873	13832
10°	13817	13315	12895
15°	13631	12484	11476
20°	13387	11356	9668
25°	13070	9994	7801
30°	12723	8565	6007
35°	12328	7068	4446
40°	11928	5625	3030
45°	11489	4206	2283
50°	11019	2926	1786
55°	10535	2140	1303
60°	10031	1601	933
65°	9437	1073	725
70°	8541	779	585
75°	7369	568	466
80°	5915	458	382
85°	3057	456	304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11489 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	6.6
10°-20°	280.9	17.3
20°-30°	352.9	21.7
30°-40°	328.7	20.2
40°-50°	251.6	15.5
50°-60°	167.2	10.3
60°-70°	90.2	5.6
70°-80°	37.0	2.3
80°-90°	7.1	0.4
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°	741.7	45.7
0°-40°	1070.3	65.9
0°-60°	1489.2	91.7
0°-90°	1623.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1623.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1167	1167	1167	1167	1167	
5°	1151	1163	1146	1142	1143	109
15°	1092	1074	1000	942	919	308
25°	982	916	751	626	586	452
35°	838	714	480	340	302	524
45°	674	498	247	145	134	520
55°	501	290	102	71	62	449
65°	331	112	38	28	25	327
75°	158	27	12	11	10	169
85°	22	3	3	3	2	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1167.3	1167.3	1167.3	1167.3	1167.3
2.5°	1157.3	1171.7	1159.5	1160.7	1160.7
5°	1150.7	1162.9	1146.3	1141.8	1142.9
7.5°	1141.8	1149.6	1121.9	1107.5	1105.3
10°	1128.6	1130.8	1087.6	1062.2	1053.3
12.5°	1112.0	1104.2	1047.8	1005.8	989.2
15°	1092.1	1074.3	1000.2	941.6	919.4
17.5°	1069.9	1040.0	946.0	869.7	843.1
20°	1043.4	1001.3	885.1	790.0	753.5
22.5°	1014.6	960.4	821.0	708.1	667.2
25°	982.5	916.1	751.3	626.2	586.4
27.5°	949.3	868.6	682.7	548.8	507.9
30°	913.9	819.9	615.2	473.6	431.5
32.5°	875.2	766.8	545.5	403.8	361.8
35°	837.6	713.7	480.2	339.7	302.1
37.5°	797.7	660.5	417.1	283.2	241.2
40°	757.9	606.3	357.4	227.9	192.5
42.5°	715.9	552.1	301.0	181.5	153.8
45°	673.8	497.9	246.7	144.9	133.9
47.5°	631.8	443.7	199.2	125.0	114.0
50°	587.5	391.7	156.0	106.2	95.2
52.5°	545.5	339.7	121.7	87.4	77.5
55°	501.2	289.9	101.8	70.8	62.0
57.5°	460.3	239.0	84.1	55.3	48.7
60°	416.0	193.6	66.4	43.2	38.7
62.5°	374.0	151.6	50.9	34.3	31.0
65°	330.8	111.8	37.6	27.7	25.4
67.5°	287.7	80.8	28.8	22.1	21.0
70°	242.3	60.9	22.1	17.7	16.6
72.5°	199.2	43.2	16.6	14.4	13.3
75°	158.2	26.6	12.2	11.1	10.0
77.5°	121.7	15.5	8.9	8.9	7.7
80°	85.2	8.9	6.6	6.6	5.5
82.5°	52.0	5.5	4.4	4.4	4.4
85°	22.1	3.3	3.3	3.3	2.2
87.5°	3.3	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.00	20.36	19.36	20.67	20.98	7.57	8.93	7.94	9.24	9.56
	3H	20.75	21.96	21.13	22.29	22.65	8.23	9.44	8.61	9.77	10.13
	4H	21.45	22.58	21.86	22.93	23.31	8.43	9.56	8.83	9.91	10.29
	6H	21.97	23.00	22.38	23.37	23.76	8.55	9.59	8.97	9.96	10.35
	8H	22.11	23.09	22.54	23.48	23.88	8.59	9.57	9.02	9.96	10.36
	12H	22.16	23.09	22.59	23.48	23.91	8.60	9.53	9.03	9.91	10.35
4H	2H	18.81	19.93	19.21	20.28	20.67	8.13	9.25	8.53	9.60	9.98
	3H	20.60	21.52	21.01	21.93	22.33	8.93	9.85	9.34	10.25	10.65
	4H	21.30	22.12	21.73	22.54	22.98	9.19	10.01	9.62	10.43	10.87
	6H	21.87	22.58	22.33	23.02	23.49	9.38	10.09	9.85	10.54	11.00
	8H	22.04	22.70	22.51	23.15	23.62	9.44	10.10	9.90	10.54	11.02
	12H	22.13	22.71	22.61	23.20	23.67	9.47	10.05	9.95	10.54	11.01
8H	4H	21.17	21.84	21.64	22.28	22.75	9.50	10.16	9.97	10.61	11.08
	6H	21.73	22.27	22.23	22.76	23.25	9.75	10.29	10.25	10.78	11.27
	8H	21.90	22.39	22.42	22.90	23.39	9.83	10.32	10.35	10.83	11.33
	12H	22.01	22.44	22.52	22.93	23.50	9.91	10.34	10.43	10.84	11.41
12H	4H	21.13	21.72	21.62	22.20	22.67	9.55	10.13	10.03	10.62	11.09
	6H	21.67	22.15	22.19	22.67	23.16	9.79	10.28	10.31	10.79	11.29
	8H	21.86	22.29	22.38	22.79	23.36	9.92	10.35	10.43	10.84	11.41