

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: P1056503

Luminaire Tested: S125R3DR-H1090D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056503  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-H1090D850-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

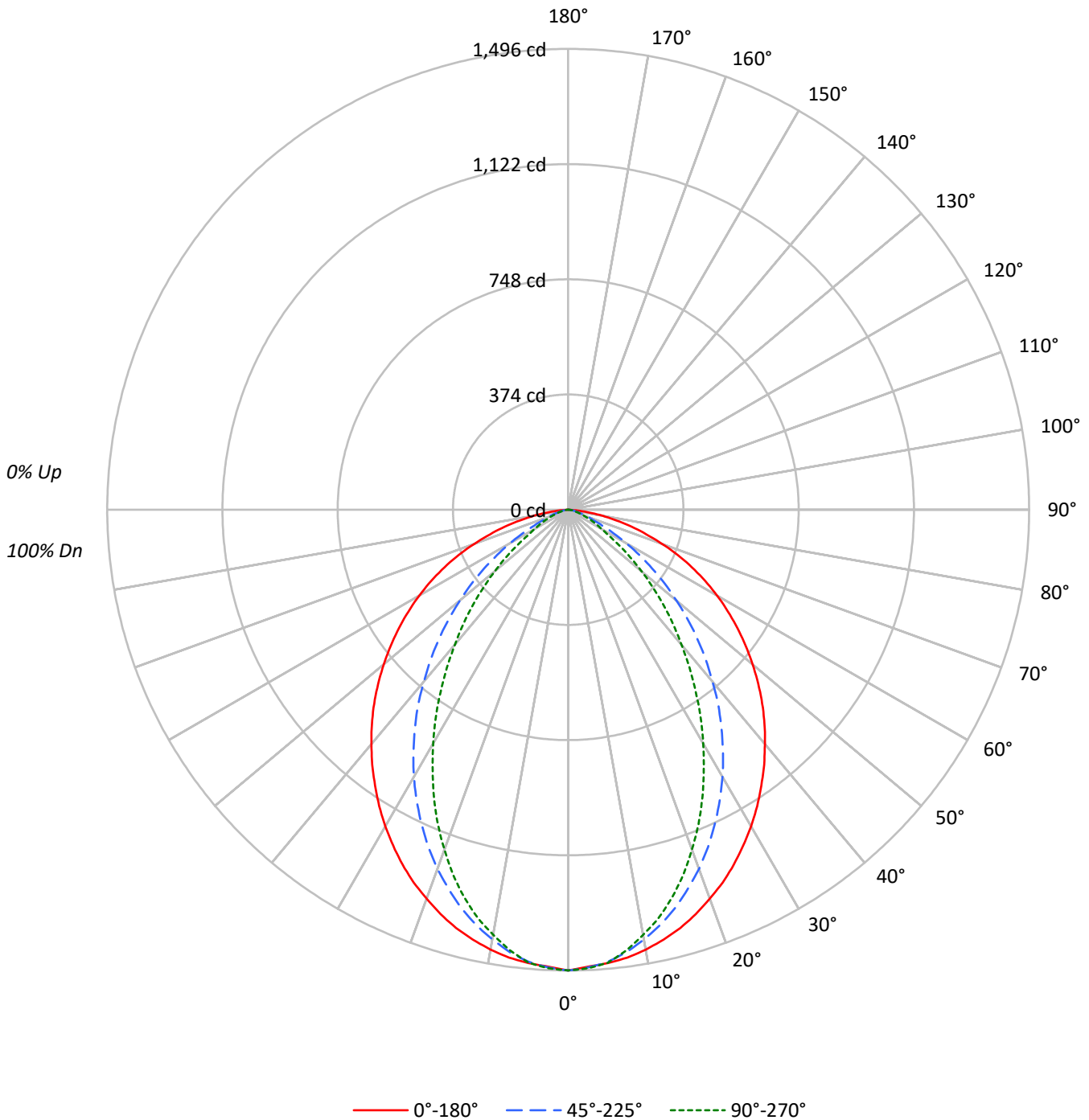
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2703.5 lumens  
Efficiency: N/A  
Efficacy: 87.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 30.9  
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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10574	10574	10574
5°	10487	10457	10477
10°	10409	10170	10061
15°	10288	9802	9538
20°	10106	9335	8836
25°	9917	8783	8037
30°	9689	8174	7156
35°	9430	7482	6227
40°	9164	6723	5266
45°	8903	5927	4362
50°	8590	5041	3427
55°	8261	4097	2492
60°	7891	3055	1781
65°	7414	2016	1390
70°	6699	1403	974
75°	5826	907	757
80°	4568	676	619
85°	2360	560	446

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8903 cd/sqm

TEST NUMBER: P1056503

CATALOG NUMBER: S125R3DR-H1090D850-X4F0-XX-UDD-F-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.3	5.2
10°-20°	378.8	14.0
20°-30°	523.7	19.4
30°-40°	554.9	20.5
40°-50°	484.3	17.9
50°-60°	344.5	12.7
60°-70°	191.6	7.1
70°-80°	73.6	2.7
80°-90°	12.8	0.5
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°	1041.8	38.5
0°-40°	1596.7	59.1
0°-60°	2425.5	89.7
0°-90°	2703.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2703.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1478	1489	1474	1470	1476	140
15°	1406	1393	1339	1310	1303	396
25°	1271	1228	1126	1057	1030	585
35°	1093	1018	867	762	722	684
45°	890	784	593	474	436	686
55°	670	537	332	230	202	599
65°	443	291	120	89	83	438
75°	213	83	33	28	28	226
85°	29	8	7	6	6	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1495.8	1495.8	1495.8	1495.8	1495.8
2.5°	1484.7	1499.9	1487.5	1488.8	1490.2
5°	1477.8	1488.8	1473.6	1469.5	1476.4
7.5°	1466.7	1475.0	1448.7	1439.0	1443.1
10°	1450.1	1452.8	1416.8	1403.0	1401.6
12.5°	1429.3	1425.1	1380.8	1358.7	1357.3
15°	1405.7	1393.3	1339.3	1310.2	1303.3
17.5°	1376.7	1357.3	1290.8	1253.4	1242.3
20°	1343.4	1317.1	1240.9	1192.5	1174.5
22.5°	1310.2	1274.2	1185.5	1124.6	1105.2
25°	1271.4	1228.5	1126.0	1056.7	1030.4
27.5°	1229.9	1178.6	1065.0	984.7	952.9
30°	1186.9	1127.4	1001.3	911.3	876.7
32.5°	1141.2	1073.4	934.9	836.5	800.5
35°	1092.7	1018.0	867.0	761.7	721.6
37.5°	1044.3	961.2	800.5	688.3	646.8
40°	993.0	903.0	728.5	613.5	570.6
42.5°	943.2	843.4	660.6	542.9	504.1
45°	890.5	783.9	592.8	473.7	436.3
47.5°	836.5	721.6	524.9	408.6	371.2
50°	781.1	660.6	458.4	344.9	311.6
52.5°	725.7	599.7	396.1	283.9	254.8
55°	670.3	537.4	332.4	229.9	202.2
57.5°	614.9	476.4	272.8	180.0	155.1
60°	558.1	414.1	216.1	133.0	126.0
62.5°	501.4	353.2	167.6	109.4	103.9
65°	443.2	290.8	120.5	88.6	83.1
67.5°	385.0	234.1	87.3	67.9	63.7
70°	324.1	178.7	67.9	51.2	47.1
72.5°	265.9	128.8	48.5	37.4	36.0
75°	213.3	83.1	33.2	27.7	27.7
77.5°	160.7	49.9	23.5	20.8	20.8
80°	112.2	29.1	16.6	15.2	15.2
82.5°	67.9	15.2	11.1	9.7	9.7
85°	29.1	8.3	6.9	5.5	5.5
87.5°	5.5	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1056503

CATALOG NUMBER: S125R3DR-H1090D850-X4F0-XX-UDD-F-S

**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	19.36	20.80	19.72	21.11	21.43	11.99	13.44	12.36	13.75	14.06
	3H	20.91	22.20	21.29	22.53	22.89	12.56	13.84	12.93	14.17	14.53
	4H	21.44	22.64	21.84	22.99	23.37	12.68	13.88	13.08	14.23	14.61
	6H	21.77	22.88	22.19	23.25	23.64	12.75	13.85	13.16	14.22	14.61
	8H	21.86	22.91	22.28	23.30	23.70	12.75	13.80	13.18	14.19	14.59
	12H	21.88	22.89	22.31	23.27	23.70	12.74	13.75	13.17	14.13	14.56
4H	2H	19.25	20.45	19.65	20.80	21.18	12.56	13.76	12.96	14.11	14.49
	3H	20.92	21.91	21.33	22.31	22.71	13.23	14.22	13.64	14.62	15.02
	4H	21.47	22.35	21.90	22.77	23.21	13.39	14.27	13.82	14.69	15.13
	6H	21.86	22.62	22.32	23.07	23.53	13.50	14.26	13.96	14.71	15.17
	8H	21.97	22.68	22.43	23.12	23.59	13.51	14.22	13.98	14.67	15.14
	12H	22.01	22.65	22.50	23.13	23.60	13.51	14.15	14.00	14.63	15.10
8H	4H	21.37	22.08	21.84	22.53	23.00	13.66	14.37	14.12	14.82	15.28
	6H	21.76	22.34	22.26	22.84	23.32	13.79	14.38	14.29	14.87	15.35
	8H	21.87	22.39	22.38	22.90	23.39	13.82	14.34	14.34	14.86	15.35
	12H	21.93	22.39	22.44	22.89	23.45	13.84	14.30	14.35	14.80	15.36
12H	4H	21.33	21.97	21.82	22.45	22.92	13.67	14.31	14.16	14.79	15.26
	6H	21.70	22.23	22.22	22.74	23.23	13.80	14.33	14.32	14.84	15.33
	8H	21.83	22.30	22.35	22.79	23.36	13.86	14.32	14.37	14.82	15.39