

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



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: NEO-RAY

Report Number: P1056545

Luminaire Tested: S125R3DR-H1270D950-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056545  
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-H1270D950-X4F0-XX-UDD-FLL-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

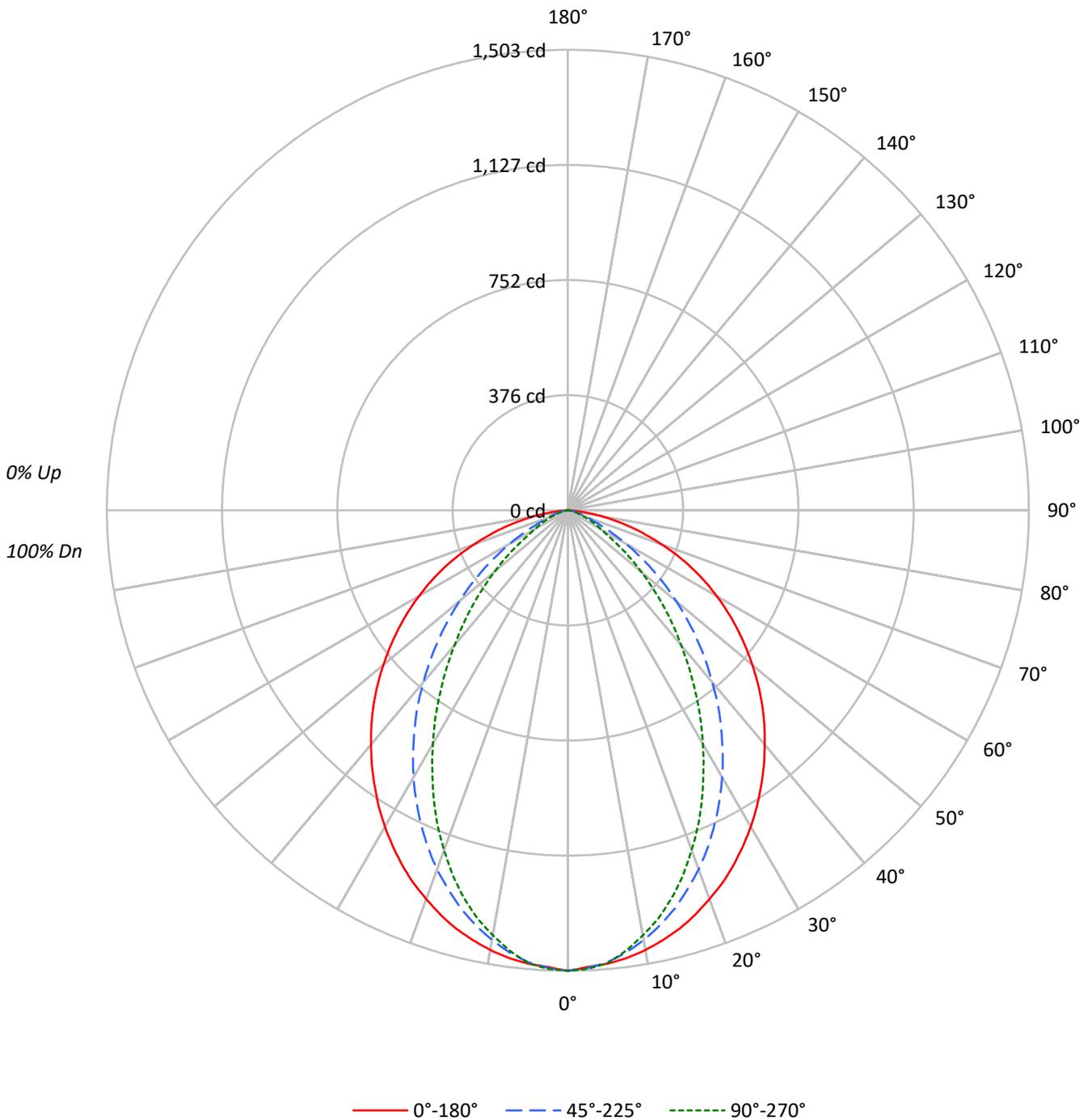
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2716.8 lumens  
Efficiency: N/A  
Efficacy: 74.2 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): 36.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P1056545

CATALOG NUMBER: S125R3DR-H1270D950-X4F0-XX-UDD-FLL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1056545

CATALOG NUMBER: S125R3DR-H1270D950-X4F0-XX-UDD-FLL-S

**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°	10626	10626	10626
5°	10538	10508	10528
10°	10460	10221	10111
15°	10339	9850	9585
20°	10156	9381	8879
25°	9965	8826	8077
30°	9737	8214	7192
35°	9477	7519	6258
40°	9209	6756	5292
45°	8947	5956	4383
50°	8633	5067	3443
55°	8302	4117	2504
60°	7930	3070	1791
65°	7450	2026	1397
70°	6732	1410	978
75°	5853	912	759
80°	4588	680	623
85°	2368	568	454

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8947 cd/sqm



TEST NUMBER: P1056545

CATALOG NUMBER: S125R3DR-H1270D950-X4F0-XX-UDD-FLL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.0	5.2
10°-20°	380.6	14.0
20°-30°	526.3	19.4
30°-40°	557.6	20.5
40°-50°	486.7	17.9
50°-60°	346.2	12.7
60°-70°	192.5	7.1
70°-80°	74.0	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°	1046.9	38.5
0°-40°	1604.6	59.1
0°-60°	2437.4	89.7
0°-90°	2716.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2716.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1503	1503	1503	1503	1503	
5°	1485	1496	1481	1477	1484	141
15°	1413	1400	1346	1317	1310	398
25°	1278	1234	1132	1062	1036	588
35°	1098	1023	871	766	725	687
45°	895	788	596	476	438	690
55°	674	540	334	231	203	602
65°	445	292	121	89	84	440
75°	214	84	33	28	28	227
85°	29	8	7	6	6	43
90°	0	0	0	0	0	



TEST NUMBER: P1056545

CATALOG NUMBER: S125R3DR-H1270D950-X4F0-XX-UDD-FLL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1503.1	1503.1	1503.1	1503.1	1503.1
2.5°	1492.0	1507.3	1494.8	1496.2	1497.5
5°	1485.0	1496.2	1480.8	1476.7	1483.6
7.5°	1473.9	1482.2	1455.8	1446.1	1450.2
10°	1457.2	1460.0	1423.8	1409.9	1408.5
12.5°	1436.3	1432.1	1387.6	1365.3	1363.9
15°	1412.7	1400.1	1345.8	1316.6	1309.7
17.5°	1383.4	1363.9	1297.1	1259.6	1248.4
20°	1350.0	1323.6	1247.0	1198.3	1180.2
22.5°	1316.6	1280.4	1191.4	1130.1	1110.6
25°	1277.6	1234.5	1131.5	1061.9	1035.5
27.5°	1235.9	1184.4	1070.3	989.6	957.5
30°	1192.8	1132.9	1006.3	915.8	881.0
32.5°	1146.8	1078.6	939.4	840.6	804.4
35°	1098.1	1023.0	871.3	765.5	725.1
37.5°	1049.4	965.9	804.4	691.7	650.0
40°	997.9	907.4	732.1	616.6	573.4
42.5°	947.8	847.6	663.9	545.6	506.6
45°	894.9	787.7	595.7	476.0	438.4
47.5°	840.6	725.1	527.5	410.6	373.0
50°	785.0	663.9	460.7	346.6	313.1
52.5°	729.3	602.6	398.0	285.3	256.1
55°	673.6	540.0	334.0	231.0	203.2
57.5°	617.9	478.8	274.2	180.9	155.9
60°	560.9	416.1	217.1	133.6	126.7
62.5°	503.8	354.9	168.4	110.0	104.4
65°	445.4	292.3	121.1	89.1	83.5
67.5°	386.9	235.2	87.7	68.2	64.0
70°	325.7	179.5	68.2	51.5	47.3
72.5°	267.2	129.4	48.7	37.6	36.2
75°	214.3	83.5	33.4	27.8	27.8
77.5°	161.4	50.1	23.7	20.9	20.9
80°	112.7	29.2	16.7	15.3	15.3
82.5°	68.2	15.3	11.1	9.7	9.7
85°	29.2	8.4	7.0	5.6	5.6
87.5°	5.6	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056545  
 CATALOG NUMBER: S125R3DR-H1270D950-X4F0-XX-UDD-FLL-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	19.37	20.82	19.74	21.13	21.45	12.01	13.45	12.37	13.77	14.08
	3H	20.93	22.22	21.31	22.55	22.91	12.57	13.86	12.95	14.19	14.55
	4H	21.45	22.66	21.85	23.00	23.39	12.70	13.90	13.10	14.25	14.63
	6H	21.79	22.90	22.20	23.27	23.66	12.76	13.87	13.18	14.24	14.63
	8H	21.87	22.92	22.30	23.31	23.72	12.77	13.82	13.20	14.21	14.61
	12H	21.90	22.90	22.33	23.28	23.71	12.76	13.76	13.19	14.15	14.58
4H	2H	19.27	20.47	19.67	20.82	21.20	12.57	13.78	12.98	14.13	14.51
	3H	20.94	21.92	21.35	22.32	22.73	13.25	14.23	13.66	14.64	15.04
	4H	21.48	22.37	21.92	22.78	23.23	13.40	14.29	13.84	14.71	15.15
	6H	21.88	22.64	22.34	23.09	23.55	13.52	14.28	13.98	14.72	15.19
	8H	21.98	22.69	22.45	23.14	23.61	13.53	14.24	13.99	14.69	15.16
	12H	22.03	22.66	22.51	23.14	23.62	13.53	14.16	14.01	14.64	15.12
8H	4H	21.39	22.10	21.85	22.55	23.02	13.67	14.39	14.14	14.83	15.30
	6H	21.77	22.36	22.27	22.85	23.33	13.81	14.39	14.31	14.89	15.37
	8H	21.88	22.41	22.40	22.92	23.41	13.84	14.36	14.35	14.87	15.36
	12H	21.95	22.41	22.46	22.90	23.47	13.86	14.32	14.37	14.81	15.38
12H	4H	21.35	21.98	21.84	22.47	22.94	13.69	14.32	14.17	14.80	15.28
	6H	21.72	22.25	22.24	22.76	23.25	13.82	14.34	14.34	14.86	15.35
	8H	21.85	22.31	22.36	22.81	23.37	13.88	14.34	14.39	14.83	15.40