

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: P1056533

Luminaire Tested: S125R3DR-H1270D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056533  
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-H1270D927-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

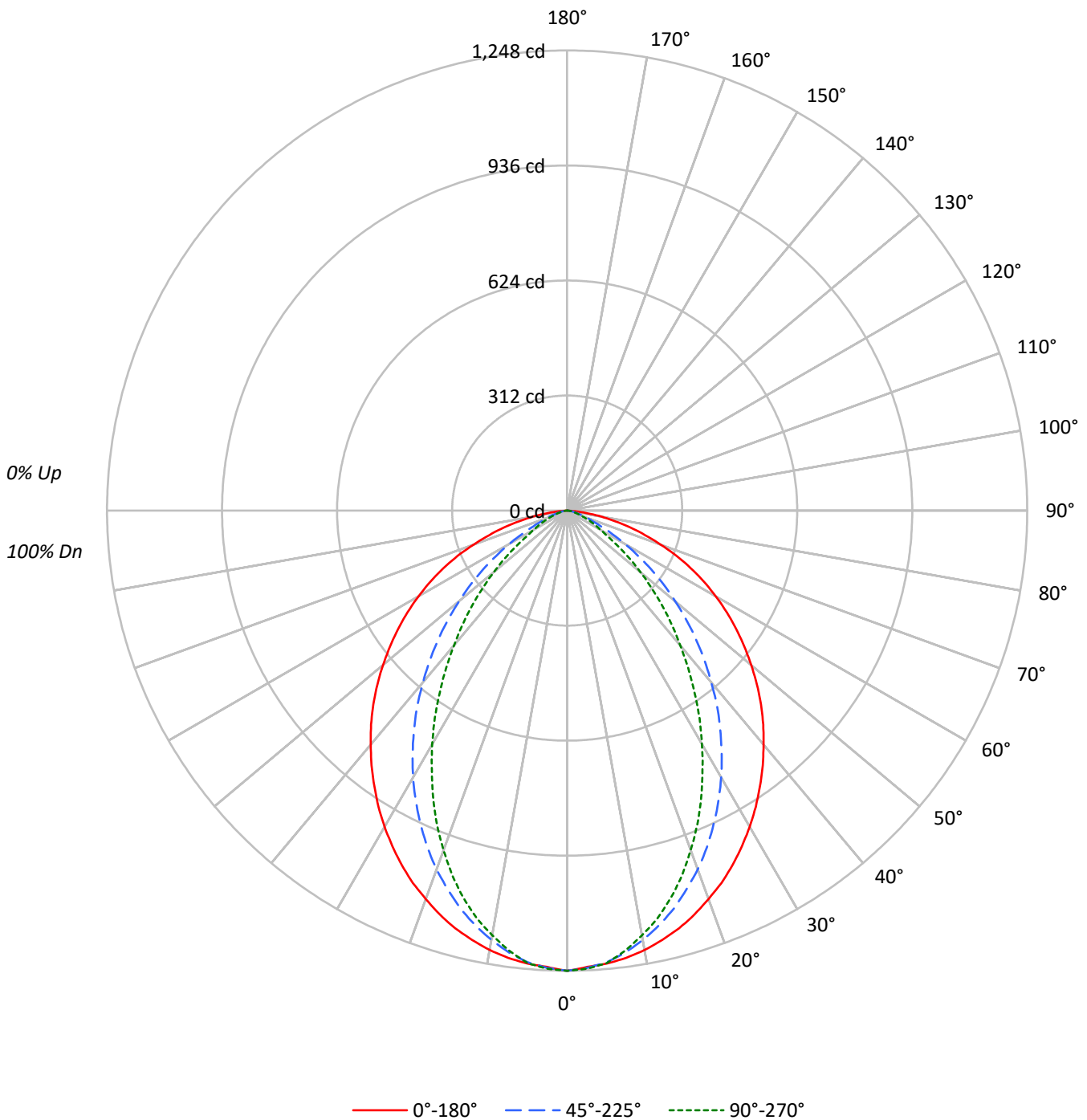
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2255.9 lumens  
Efficiency: N/A  
Efficacy: 61.6 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: P1056533

CATALOG NUMBER: S125R3DR-H1270D927-X4F0-XX-UDD-F-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1056533

CATALOG NUMBER: S125R3DR-H1270D927-X4F0-XX-UDD-F-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	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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

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

	0°	45°	90°
0°	8824	8824	8824
5°	8750	8726	8743
10°	8686	8487	8396
15°	8585	8179	7959
20°	8433	7790	7373
25°	8275	7329	6707
30°	8085	6821	5972
35°	7869	6244	5196
40°	7647	5610	4394
45°	7429	4945	3639
50°	7168	4207	2859
55°	6895	3419	2079
60°	6584	2549	1487
65°	6186	1681	1159
70°	5589	1170	812
75°	4862	757	631
80°	3811	566	517
85°	1971	470	373

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7429 cd/sqm

TEST NUMBER: P1056533

CATALOG NUMBER: S125R3DR-H1270D927-X4F0-XX-UDD-F-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	5.2
10°-20°	316.1	14.0
20°-30°	437.0	19.4
30°-40°	463.0	20.5
40°-50°	404.1	17.9
50°-60°	287.4	12.7
60°-70°	159.8	7.1
70°-80°	61.4	2.7
80°-90°	10.6	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°	869.4	38.5
0°-40°	1332.4	59.1
0°-60°	2024.0	89.7
0°-90°	2255.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2255.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1233	1242	1230	1226	1232	117
15°	1173	1163	1118	1093	1088	330
25°	1061	1025	940	882	860	488
35°	912	849	724	636	602	570
45°	743	654	495	395	364	573
55°	559	448	277	192	169	500
65°	370	243	100	74	69	365
75°	178	69	28	23	23	189
85°	24	7	6	5	5	36
90°	0	0	0	0	0	



TEST NUMBER: P1056533

CATALOG NUMBER: S125R3DR-H1270D927-X4F0-XX-UDD-F-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1248.2	1248.2	1248.2	1248.2	1248.2
2.5°	1238.9	1251.6	1241.2	1242.4	1243.5
5°	1233.1	1242.4	1229.7	1226.2	1232.0
7.5°	1223.9	1230.8	1208.9	1200.8	1204.2
10°	1210.0	1212.3	1182.3	1170.7	1169.6
12.5°	1192.7	1189.2	1152.2	1133.7	1132.6
15°	1173.0	1162.6	1117.6	1093.3	1087.5
17.5°	1148.8	1132.6	1077.1	1045.9	1036.7
20°	1121.0	1099.1	1035.5	995.1	980.0
22.5°	1093.3	1063.2	989.3	938.4	922.2
25°	1060.9	1025.1	939.6	881.8	859.8
27.5°	1026.3	983.5	888.7	821.7	795.1
30°	990.4	940.7	835.6	760.4	731.6
32.5°	952.3	895.7	780.1	698.0	668.0
35°	911.8	849.4	723.5	635.6	602.1
37.5°	871.4	802.1	668.0	574.4	539.7
40°	828.6	753.5	607.9	512.0	476.1
42.5°	787.0	703.8	551.3	453.0	420.7
45°	743.1	654.1	494.6	395.2	364.0
47.5°	698.0	602.1	438.0	340.9	309.7
50°	651.8	551.3	382.5	287.8	260.0
52.5°	605.6	500.4	330.5	236.9	212.6
55°	559.4	448.4	277.4	191.8	168.7
57.5°	513.1	397.6	227.7	150.2	129.4
60°	465.7	345.6	180.3	110.9	105.2
62.5°	418.4	294.7	139.8	91.3	86.7
65°	369.8	242.7	100.5	74.0	69.3
67.5°	321.3	195.3	72.8	56.6	53.2
70°	270.4	149.1	56.6	42.8	39.3
72.5°	221.9	107.5	40.4	31.2	30.0
75°	178.0	69.3	27.7	23.1	23.1
77.5°	134.1	41.6	19.6	17.3	17.3
80°	93.6	24.3	13.9	12.7	12.7
82.5°	56.6	12.7	9.2	8.1	8.1
85°	24.3	6.9	5.8	4.6	4.6
87.5°	4.6	2.3	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056533  
 CATALOG NUMBER: S125R3DR-H1270D927-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	18.73	20.17	19.09	20.49	20.80	11.36	12.81	11.73	13.12	13.44
	3H	20.29	21.57	20.66	21.90	22.26	11.93	13.21	12.31	13.54	13.91
	4H	20.81	22.01	21.21	22.36	22.74	12.05	13.25	12.45	13.60	13.98
	6H	21.15	22.25	21.56	22.62	23.01	12.12	13.22	12.53	13.59	13.98
	8H	21.23	22.28	21.66	22.67	23.07	12.12	13.17	12.55	13.56	13.96
	12H	21.25	22.26	21.68	22.64	23.07	12.11	13.12	12.54	13.50	13.93
4H	2H	18.62	19.83	19.02	20.18	20.56	11.93	13.13	12.33	13.48	13.86
	3H	20.29	21.28	20.70	21.68	22.08	12.60	13.59	13.01	13.99	14.39
	4H	20.84	21.72	21.27	22.14	22.58	12.76	13.64	13.19	14.06	14.50
	6H	21.23	22.00	21.69	22.44	22.90	12.87	13.63	13.33	14.08	14.54
	8H	21.34	22.05	21.80	22.50	22.96	12.88	13.59	13.35	14.04	14.51
	12H	21.38	22.02	21.87	22.50	22.97	12.88	13.52	13.37	14.00	14.47
8H	4H	20.74	21.46	21.21	21.90	22.37	13.03	13.74	13.49	14.19	14.65
	6H	21.13	21.71	21.63	22.21	22.69	13.16	13.75	13.66	14.24	14.72
	8H	21.24	21.76	21.75	22.27	22.76	13.19	13.71	13.71	14.23	14.72
	12H	21.30	21.76	21.81	22.26	22.83	13.21	13.67	13.72	14.17	14.74
12H	4H	20.71	21.34	21.19	21.82	22.29	13.04	13.68	13.53	14.16	14.63
	6H	21.08	21.60	21.59	22.11	22.60	13.17	13.70	13.69	14.21	14.70
	8H	21.20	21.67	21.72	22.16	22.73	13.23	13.69	13.74	14.19	14.76