

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: P1056599

Luminaire Tested: S125R3DR-H610D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056599  
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-H610D950-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, 90 CRI LEDS  
Ballast/Driver: -

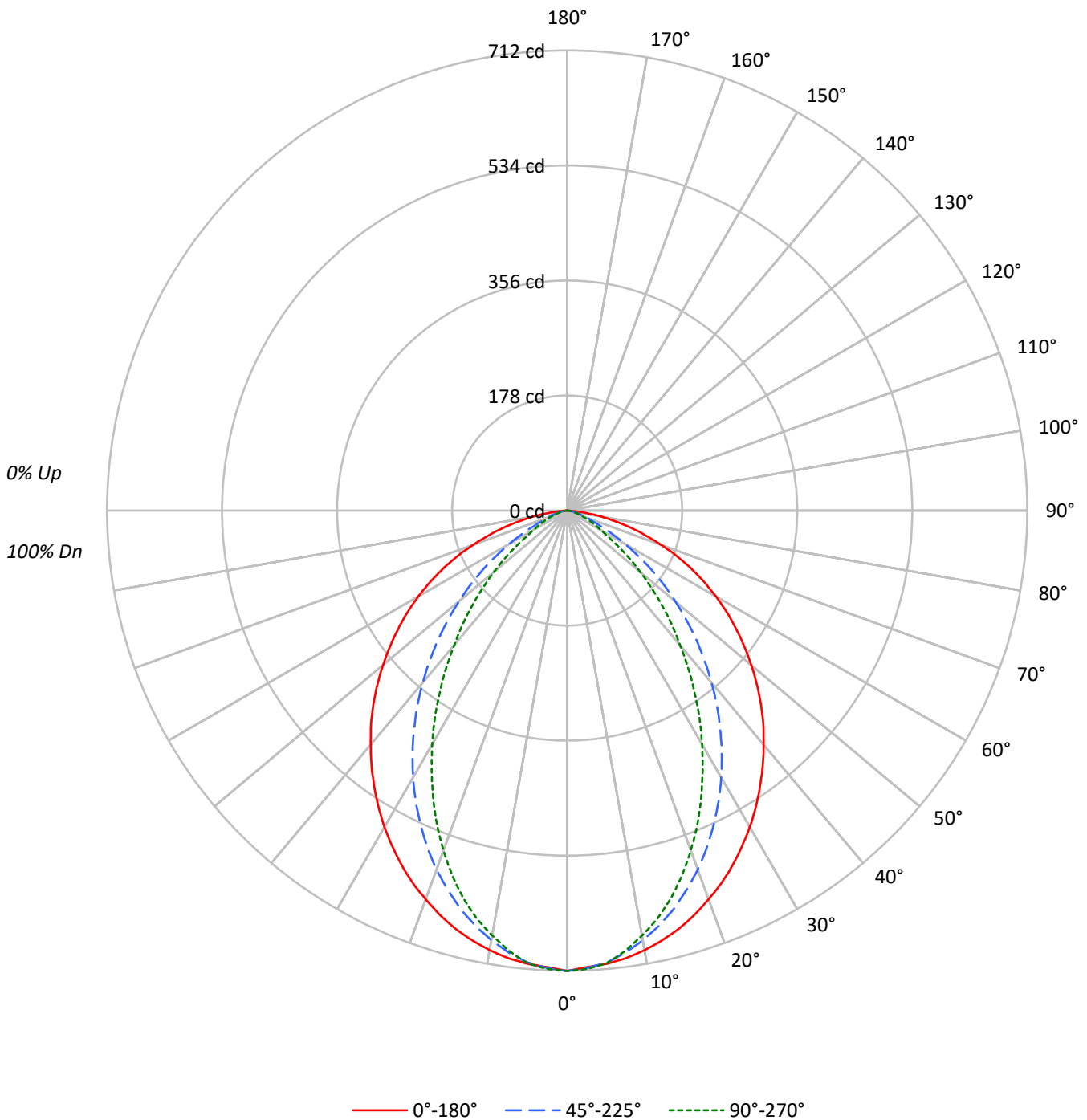
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1287.6 lumens  
Efficiency: N/A  
Efficacy: 74.4 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): 17.3  
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°	5036	5036	5036
5°	4994	4981	4990
10°	4957	4844	4792
15°	4900	4669	4543
20°	4814	4446	4208
25°	4724	4183	3828
30°	4615	3893	3409
35°	4492	3563	2966
40°	4365	3202	2508
45°	4241	2822	2077
50°	4091	2401	1632
55°	3935	1951	1187
60°	3758	1455	848
65°	3531	960	662
70°	3191	668	463
75°	2775	432	361
80°	2174	322	297
85°	1127	268	211

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4241 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.4	5.2
10°-20°	180.4	14.0
20°-30°	249.5	19.4
30°-40°	264.3	20.5
40°-50°	230.7	17.9
50°-60°	164.1	12.7
60°-70°	91.2	7.1
70°-80°	35.1	2.7
80°-90°	6.1	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°	496.2	38.5
0°-40°	760.5	59.1
0°-60°	1155.3	89.7
0°-90°	1287.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1287.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	712	712	712	712	712	
5°	704	709	702	700	703	67
15°	670	664	638	624	621	189
25°	606	585	536	503	491	279
35°	520	485	413	363	344	326
45°	424	373	282	226	208	327
55°	319	256	158	110	96	285
65°	211	138	57	42	40	209
75°	102	40	16	13	13	108
85°	14	4	3	3	3	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	712.4	712.4	712.4	712.4	712.4
2.5°	707.1	714.4	708.5	709.1	709.8
5°	703.8	709.1	701.9	699.9	703.2
7.5°	698.6	702.5	690.0	685.4	687.3
10°	690.6	692.0	674.8	668.2	667.6
12.5°	680.8	678.8	657.7	647.1	646.5
15°	669.5	663.6	637.9	624.0	620.7
17.5°	655.7	646.5	614.8	597.0	591.7
20°	639.9	627.3	591.0	568.0	559.4
22.5°	624.0	606.9	564.7	535.6	526.4
25°	605.6	585.1	536.3	503.3	490.8
27.5°	585.8	561.4	507.3	469.0	453.8
30°	565.3	537.0	476.9	434.0	417.6
32.5°	543.5	511.2	445.3	398.4	381.3
35°	520.5	484.8	412.9	362.8	343.7
37.5°	497.4	457.8	381.3	327.8	308.1
40°	473.0	430.1	347.0	292.2	271.8
42.5°	449.2	401.7	314.7	258.6	240.1
45°	424.2	373.4	282.3	225.6	207.8
47.5°	398.4	343.7	250.0	194.6	176.8
50°	372.0	314.7	218.3	164.3	148.4
52.5°	345.7	285.6	188.7	135.2	121.4
55°	319.3	255.9	158.3	109.5	96.3
57.5°	292.9	226.9	129.9	85.8	73.9
60°	265.8	197.2	102.9	63.3	60.0
62.5°	238.8	168.2	79.8	52.1	49.5
65°	211.1	138.5	57.4	42.2	39.6
67.5°	183.4	111.5	41.6	32.3	30.3
70°	154.4	85.1	32.3	24.4	22.4
72.5°	126.7	61.3	23.1	17.8	17.2
75°	101.6	39.6	15.8	13.2	13.2
77.5°	76.5	23.7	11.2	9.9	9.9
80°	53.4	13.9	7.9	7.3	7.3
82.5°	32.3	7.3	5.3	4.6	4.6
85°	13.9	4.0	3.3	2.6	2.6
87.5°	2.6	1.3	1.3	1.3	1.3
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	16.78	18.22	17.14	18.54	18.85	9.42	10.86	9.78	11.18	11.49
	3H	18.34	19.62	18.72	19.95	20.32	9.98	11.27	10.36	11.60	11.96
	4H	18.86	20.06	19.26	20.41	20.79	10.11	11.31	10.51	11.66	12.04
	6H	19.20	20.30	19.61	20.67	21.06	10.17	11.28	10.58	11.65	12.04
	8H	19.28	20.33	19.71	20.72	21.12	10.18	11.23	10.60	11.62	12.02
	12H	19.30	20.31	19.73	20.69	21.12	10.17	11.17	10.60	11.55	11.98
4H	2H	16.67	17.88	17.08	18.23	18.61	9.98	11.19	10.38	11.54	11.92
	3H	18.34	19.33	18.75	19.73	20.13	10.66	11.64	11.07	12.04	12.45
	4H	18.89	19.77	19.32	20.19	20.63	10.81	11.70	11.25	12.11	12.55
	6H	19.28	20.05	19.74	20.49	20.95	10.92	11.69	11.38	12.13	12.60
	8H	19.39	20.10	19.85	20.55	21.02	10.94	11.65	11.40	12.10	12.56
	12H	19.44	20.07	19.92	20.55	21.02	10.94	11.57	11.42	12.05	12.52
8H	4H	18.79	19.51	19.26	19.95	20.42	11.08	11.79	11.55	12.24	12.71
	6H	19.18	19.77	19.68	20.26	20.74	11.22	11.80	11.72	12.29	12.77
	8H	19.29	19.81	19.81	20.33	20.82	11.24	11.77	11.76	12.28	12.77
	12H	19.35	19.82	19.86	20.31	20.88	11.26	11.73	11.78	12.22	12.79
12H	4H	18.76	19.39	19.24	19.87	20.34	11.10	11.73	11.58	12.21	12.68
	6H	19.13	19.65	19.65	20.17	20.66	11.23	11.75	11.75	12.27	12.76
	8H	19.26	19.72	19.77	20.21	20.78	11.29	11.75	11.80	12.24	12.81