

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: P1062156

Luminaire Tested: S125RDR-H610D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062156  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H610D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

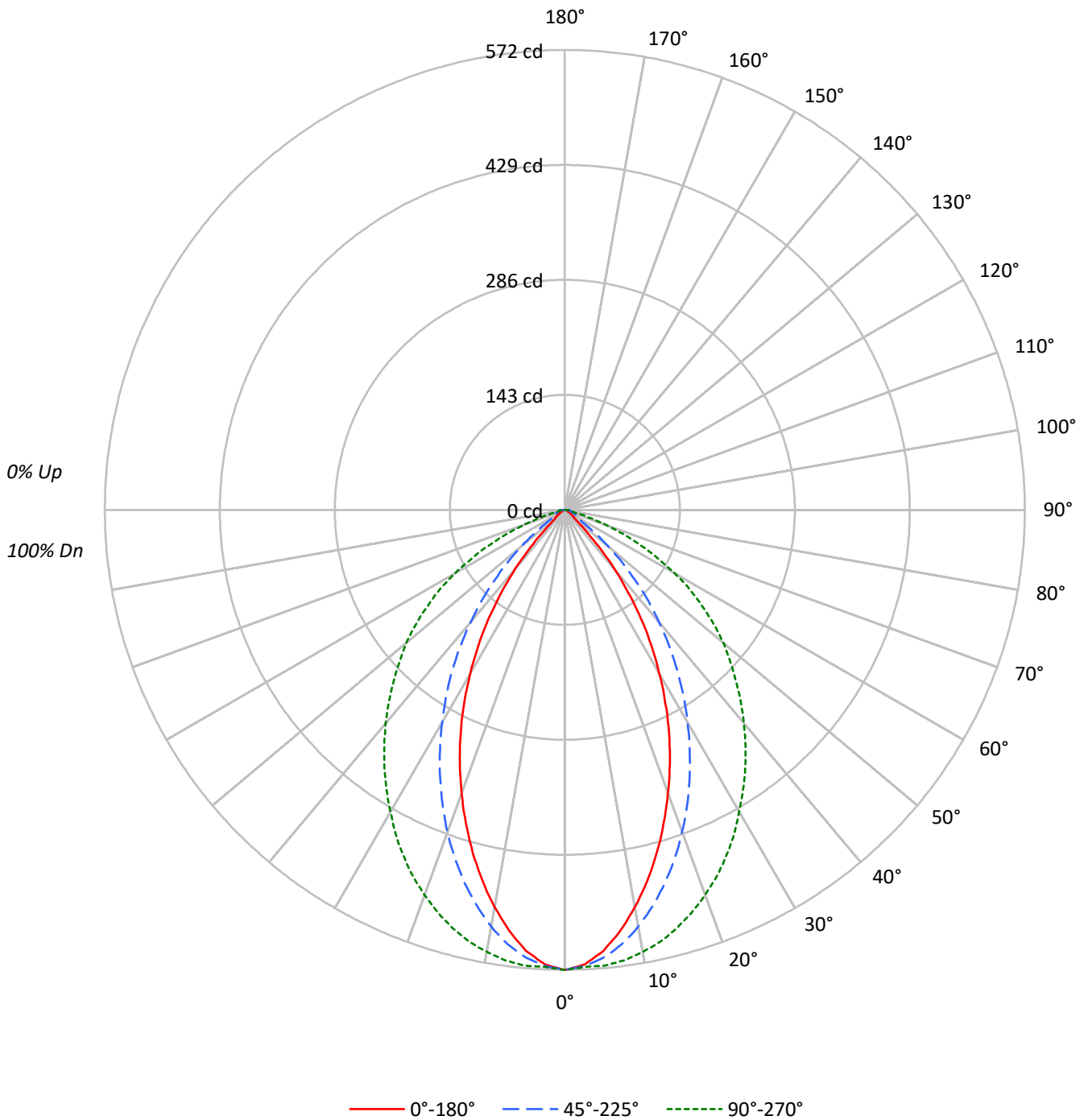
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 740.4 lumens  
Efficiency: N/A  
Efficacy: 42.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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

TEST NUMBER: P1062156

CATALOG NUMBER: S125RDR-H610D950-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1062156

CATALOG NUMBER: S125RDR-H610D950-X4F0-XX-UDD-BVL-W

**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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80			80	
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72			72	
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65			65	
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59			59	
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53			53	
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49			49	
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45			45	
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41			41	
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38			38	

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

	0°	45°	90°
0°	3940	3940	3940
5°	3805	3863	3933
10°	3508	3680	3903
15°	3150	3426	3838
20°	2748	3126	3736
25°	2328	2787	3608
30°	1870	2426	3447
35°	1384	2047	3286
40°	857	1634	3114
45°	334	1195	2928
50°	156	749	2758
55°	114	321	2503
60°	78	227	2172
65°	52	238	1688
70°	50	217	1063
75°	67	221	338
80°	99	254	226
85°	150	506	355

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2928 cd/sqm

TEST NUMBER: P1062156

CATALOG NUMBER: S125RDR-H610D950-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.5	7.1
10°-20°	136.0	18.4
20°-30°	173.2	23.4
30°-40°	161.2	21.8
40°-50°	110.9	15.0
50°-60°	62.8	8.5
60°-70°	29.7	4.0
70°-80°	9.3	1.3
80°-90°	4.8	0.7
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°	361.6	48.8
0°-40°	522.8	70.6
0°-60°	696.6	94.1
0°-90°	740.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	740.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	572	572	572	572	572	
5°	551	558	559	564	569	51
15°	442	456	481	517	538	123
25°	306	326	367	428	475	140
35°	165	188	244	327	391	102
45°	34	55	123	222	301	32
55°	10	11	27	128	208	9
65°	3	4	15	46	104	4
75°	2	6	8	9	13	3
85°	2	5	6	6	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1062156

CATALOG NUMBER: S125RDR-H610D950-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	572.2	572.2	572.2	572.2	572.2
2.5°	565.9	571.6	567.8	568.4	569.0
5°	550.6	558.2	558.9	564.0	569.0
7.5°	528.4	537.9	544.9	557.0	565.2
10°	501.7	513.1	526.4	546.2	558.2
12.5°	473.0	486.4	504.8	532.8	550.0
15°	441.9	456.5	480.7	516.9	538.5
17.5°	408.8	425.4	454.6	497.8	525.2
20°	375.1	392.9	426.6	476.2	509.9
22.5°	341.4	359.9	397.4	452.7	493.4
25°	306.5	326.2	366.9	428.5	474.9
27.5°	270.9	291.2	336.3	403.7	455.2
30°	235.2	256.9	305.2	378.3	433.6
32.5°	200.3	221.9	274.7	352.9	412.6
35°	164.7	187.6	243.5	326.8	391.0
37.5°	129.1	153.9	213.0	300.1	368.8
40°	95.4	118.9	181.8	274.0	346.5
42.5°	63.6	86.5	153.9	248.0	323.6
45°	34.3	54.7	122.7	221.9	300.7
47.5°	18.4	29.2	96.0	196.5	278.5
50°	14.6	16.5	69.9	172.9	257.5
52.5°	12.1	13.4	45.8	150.7	233.3
55°	9.5	10.8	26.7	127.8	208.5
57.5°	7.6	8.9	17.2	106.2	184.4
60°	5.7	7.0	16.5	85.2	157.7
62.5°	4.5	5.1	15.3	65.5	129.7
65°	3.2	3.8	14.6	45.8	103.6
67.5°	2.5	3.2	13.4	29.2	77.6
70°	2.5	2.5	10.8	19.1	52.8
72.5°	2.5	4.5	9.5	12.7	31.8
75°	2.5	5.7	8.3	8.9	12.7
77.5°	2.5	6.4	7.0	7.0	7.0
80°	2.5	5.7	6.4	6.4	5.7
82.5°	2.5	5.1	5.7	6.4	5.1
85°	1.9	5.1	6.4	5.7	4.5
87.5°	1.9	5.1	5.7	5.1	3.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062156  
 CATALOG NUMBER: S125RDR-H610D950-X4F0-XX-UDD-BVL-W

**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	0.00	0.00	0.00	0.00	0.00	14.01	15.30	14.38	15.61	15.93
	3H	0.00	0.00	0.00	0.00	0.00	14.73	15.87	15.11	16.20	16.57
	4H	0.00	0.00	0.00	0.00	0.00	14.75	15.82	15.16	16.17	16.55
	6H	0.00	0.00	0.00	0.00	0.05	14.70	15.68	15.12	16.05	16.44
	8H	0.00	0.00	0.00	0.26	0.66	14.68	15.60	15.11	15.99	16.40
	12H	0.00	0.42	0.00	0.80	1.23	14.66	15.55	15.10	15.93	16.36
4H	2H	0.00	0.00	0.00	0.00	0.31	13.80	14.86	14.20	15.21	15.60
	3H	0.00	0.19	0.00	0.59	1.00	14.56	15.42	14.97	15.83	16.23
	4H	0.32	1.10	0.76	1.52	1.96	14.59	15.36	15.02	15.78	16.22
	6H	1.60	2.27	2.06	2.71	3.18	14.56	15.23	15.03	15.68	16.15
	8H	2.18	2.80	2.65	3.25	3.72	14.55	15.17	15.02	15.62	16.09
	12H	2.74	3.29	3.22	3.77	4.25	14.56	15.11	15.04	15.59	16.07
8H	4H	1.75	2.37	2.22	2.82	3.29	14.47	15.09	14.94	15.54	16.01
	6H	3.31	3.82	3.81	4.31	4.80	14.46	14.97	14.96	15.46	15.95
	8H	4.10	4.56	4.62	5.07	5.57	14.47	14.93	14.99	15.44	15.94
	12H	4.94	5.34	5.46	5.84	6.41	14.53	14.94	15.05	15.43	16.00
12H	4H	1.97	2.52	2.46	3.01	3.48	14.43	14.98	14.91	15.46	15.93
	6H	3.68	4.14	4.20	4.65	5.15	14.41	14.87	14.94	15.39	15.88
	8H	4.67	5.07	5.19	5.57	6.14	14.46	14.86	14.98	15.36	15.93