

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: P1062218

Luminaire Tested: S125RDR-H850D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062218  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D935-X4F0-XX-UDD-BVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

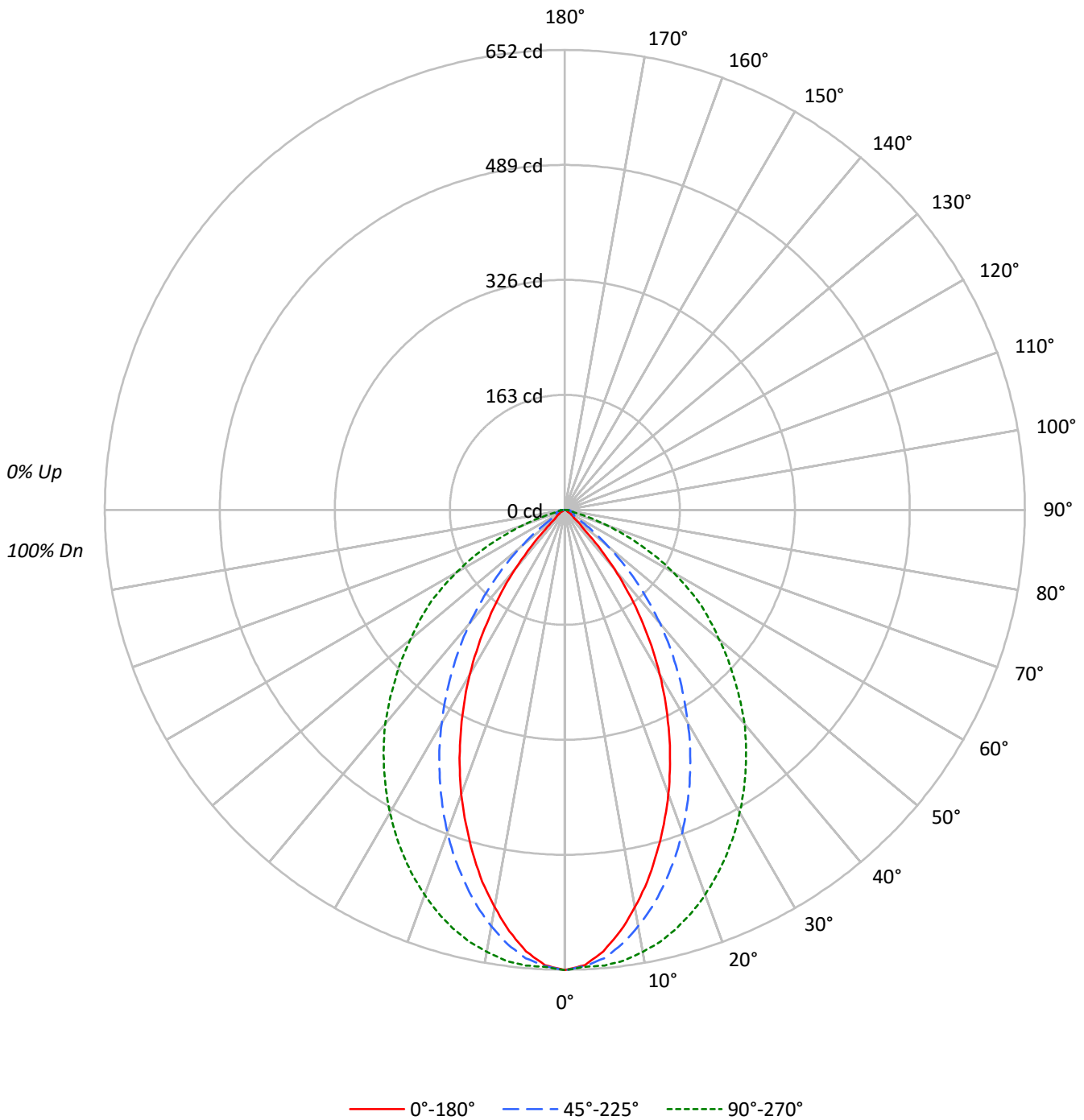
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 839.2 lumens  
Efficiency: N/A  
Efficacy: 35.7 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): 23.5  
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: P1062218

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1062218

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-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				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				

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

	0°	45°	90°
0°	4493	4493	4493
5°	4343	4410	4481
10°	4000	4191	4449
15°	3591	3901	4376
20°	3144	3568	4256
25°	2655	3186	4108
30°	2140	2772	3942
35°	1573	2337	3755
40°	982	1885	3560
45°	368	1377	3310
50°	172	861	3055
55°	125	357	2826
60°	88	189	2446
65°	52	223	1937
70°	48	260	1230
75°	64	255	386
80°	95	317	285
85°	190	506	379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3310 cd/sqm



TEST NUMBER: P1062218

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	7.1
10°-20°	154.9	18.5
20°-30°	197.3	23.5
30°-40°	183.6	21.9
40°-50°	125.8	15.0
50°-60°	69.3	8.3
60°-70°	32.8	3.9
70°-80°	10.3	1.2
80°-90°	5.3	0.6
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°	412.0	49.1
0°-40°	595.7	71.0
0°-60°	790.8	94.2
0°-90°	839.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	839.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	652	652	652	652	652	
5°	628	636	638	643	648	58
15°	504	520	547	588	614	140
25°	350	371	419	487	541	160
35°	187	214	278	370	447	116
45°	38	64	141	251	340	36
55°	10	12	30	140	235	9
65°	3	4	14	51	119	4
75°	2	4	10	10	14	3
85°	2	6	6	6	5	2
90°	0	0	0	0	0	



TEST NUMBER: P1062218

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	652.5	652.5	652.5	652.5	652.5
2.5°	646.0	652.5	647.6	647.6	648.4
5°	628.3	636.4	638.0	642.8	648.4
7.5°	602.6	613.1	621.1	634.8	644.4
10°	572.1	585.0	599.4	621.9	636.4
12.5°	540.0	553.6	575.3	606.7	626.7
15°	503.8	519.9	547.2	588.2	613.9
17.5°	466.8	484.5	518.3	566.5	598.6
20°	429.1	447.6	486.9	540.8	580.9
22.5°	389.7	409.8	453.2	514.2	561.7
25°	349.5	371.2	419.4	486.9	540.8
27.5°	309.4	331.9	384.9	458.8	519.1
30°	269.2	292.5	348.7	429.9	495.8
32.5°	228.2	253.9	313.4	401.0	471.7
35°	187.2	213.7	278.0	369.6	446.8
37.5°	147.0	174.4	243.5	339.9	421.8
40°	109.3	136.6	209.7	310.2	396.1
42.5°	70.7	99.6	174.4	279.6	368.0
45°	37.8	63.5	141.4	250.7	339.9
47.5°	20.1	33.7	110.1	221.8	313.4
50°	16.1	18.5	80.4	192.8	285.2
52.5°	12.9	14.5	51.4	163.1	260.3
55°	10.4	12.1	29.7	139.8	235.4
57.5°	8.0	9.6	16.9	116.5	206.5
60°	6.4	7.2	13.7	93.2	177.6
62.5°	4.0	5.6	13.7	72.3	148.7
65°	3.2	4.0	13.7	51.4	118.9
67.5°	3.2	3.2	13.7	33.7	89.2
70°	2.4	2.4	12.9	21.7	61.1
72.5°	2.4	2.4	11.2	14.5	35.4
75°	2.4	4.0	9.6	10.4	14.5
77.5°	2.4	6.4	8.8	8.8	8.0
80°	2.4	6.4	8.0	7.2	7.2
82.5°	2.4	6.4	6.4	6.4	5.6
85°	2.4	5.6	6.4	5.6	4.8
87.5°	2.4	5.6	5.6	5.6	3.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062218  
 CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-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	0.00	0.00	0.00	0.00	0.00	14.26	15.55	14.63	15.86	16.18
	3H	0.00	0.00	0.00	0.00	0.00	15.05	16.19	15.43	16.52	16.88
	4H	0.00	0.00	0.00	0.00	0.00	15.08	16.14	15.48	16.49	16.87
	6H	0.00	0.00	0.00	0.00	0.00	15.03	16.00	15.45	16.38	16.77
	8H	0.00	0.00	0.00	0.00	0.32	15.01	15.93	15.44	16.32	16.73
	12H	0.00	0.23	0.00	0.61	1.04	14.99	15.87	15.42	16.25	16.68
4H	2H	0.00	0.00	0.00	0.00	0.00	14.05	15.11	14.45	15.46	15.84
	3H	0.00	0.00	0.00	0.18	0.58	14.88	15.74	15.29	16.14	16.55
	4H	0.00	0.28	0.00	0.70	1.14	14.91	15.68	15.35	16.10	16.54
	6H	0.99	1.66	1.46	2.11	2.57	14.90	15.56	15.36	16.01	16.48
	8H	1.73	2.35	2.20	2.80	3.27	14.88	15.50	15.35	15.95	16.42
	12H	2.47	3.02	2.96	3.50	3.98	14.88	15.43	15.37	15.91	16.39
8H	4H	1.54	2.16	2.01	2.61	3.08	14.80	15.42	15.27	15.86	16.33
	6H	3.28	3.79	3.78	4.28	4.76	14.80	15.30	15.30	15.80	16.28
	8H	4.23	4.68	4.75	5.20	5.69	14.80	15.26	15.33	15.77	16.26
	12H	5.16	5.56	5.68	6.06	6.63	14.85	15.25	15.36	15.74	16.32
12H	4H	1.84	2.39	2.33	2.87	3.35	14.75	15.30	15.24	15.78	16.26
	6H	3.74	4.19	4.26	4.71	5.20	14.75	15.21	15.27	15.72	16.21
	8H	4.87	5.27	5.38	5.76	6.33	14.79	15.19	15.31	15.69	16.26