

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: P1061794

Luminaire Tested: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061794  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

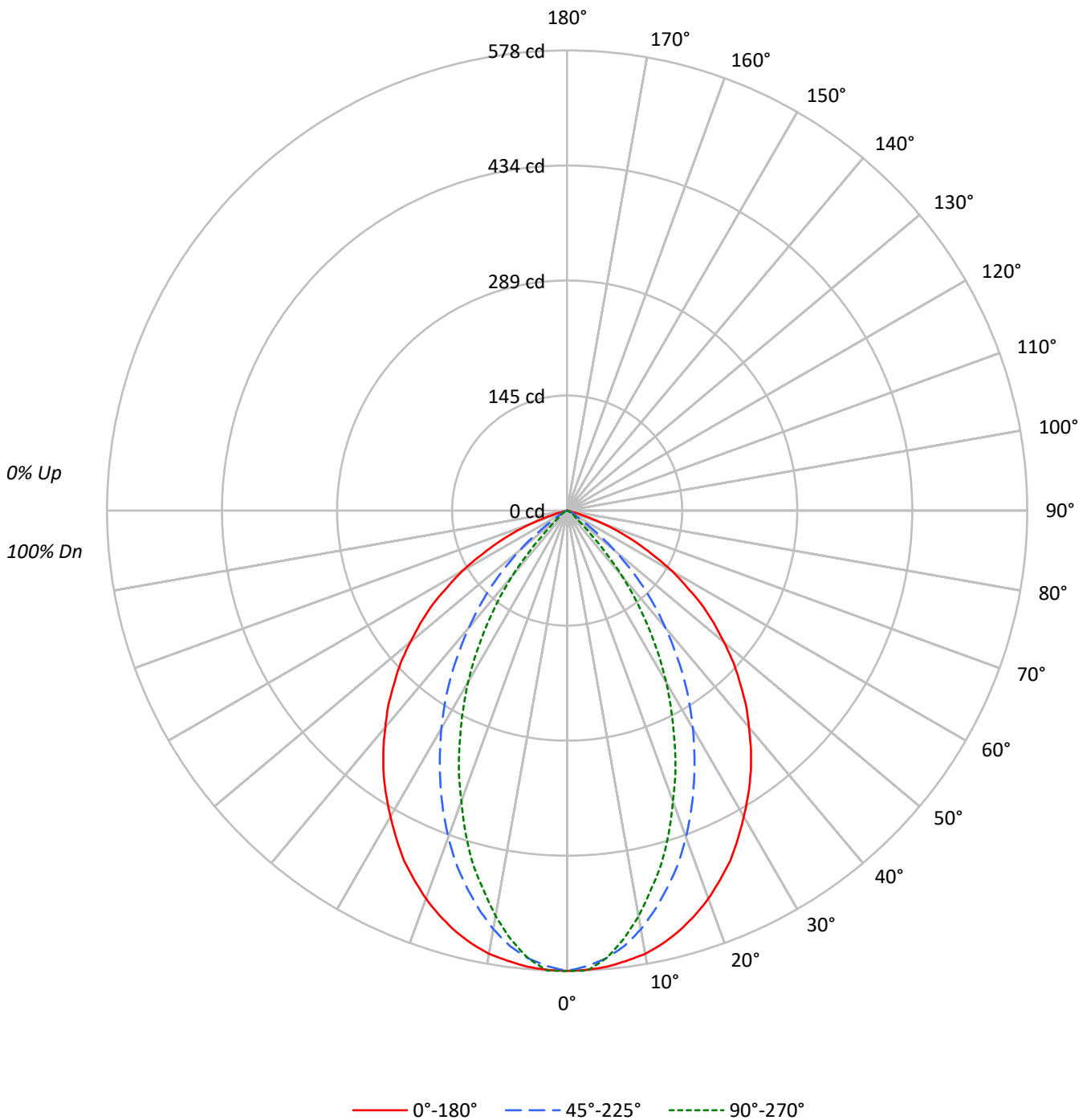
Lumens per Lamp: N/A  
Luminaire Lumens: 746.9 lumens  
Efficiency: N/A  
Efficacy: 29.0 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 25.8  
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: P1061794

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1061794

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B

**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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	57	65	60	56	54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	3981	3981	3981
5°	3975	3901	3901
10°	3952	3733	3615
15°	3893	3485	3268
20°	3801	3197	2844
25°	3685	2863	2422
30°	3529	2511	1977
35°	3379	2142	1481
40°	3194	1728	960
45°	2993	1307	416
50°	2753	833	155
55°	2481	366	110
60°	2100	157	73
65°	1590	99	37
70°	968	46	16
75°	202	21	21
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2993 cd/sqm



TEST NUMBER: P1061794

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.3	7.1
10°-20°	138.9	18.6
20°-30°	178.4	23.9
30°-40°	167.9	22.5
40°-50°	117.4	15.7
50°-60°	62.7	8.4
60°-70°	25.0	3.3
70°-80°	3.3	0.4
80°-90°	0.0	0.0
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°	370.6	49.6
0°-40°	538.5	72.1
0°-60°	718.7	96.2
0°-90°	746.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	746.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	575	574	564	566	564	55
15°	546	529	489	466	458	154
25°	485	442	377	336	319	223
35°	402	338	255	197	176	251
45°	307	230	134	65	43	237
55°	207	127	30	11	9	183
65°	98	39	6	3	2	97
75°	8	2	1	1	1	15
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1061794

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	578.2	578.2	578.2	578.2	578.2
2.5°	577.4	578.2	572.8	577.4	578.2
5°	575.1	573.6	564.4	566.0	564.4
7.5°	570.5	566.7	551.5	546.1	543.1
10°	565.2	556.8	533.9	522.5	517.1
12.5°	556.8	544.6	512.6	495.0	487.4
15°	546.1	528.6	488.9	466.0	458.4
17.5°	533.2	510.3	464.5	436.3	424.8
20°	518.7	488.2	436.3	402.7	388.2
22.5°	501.9	466.8	407.3	369.9	355.4
25°	485.1	442.4	376.8	335.6	318.8
27.5°	464.5	417.2	346.3	302.0	283.7
30°	443.9	392.1	315.8	267.7	248.7
32.5°	423.3	365.4	285.3	231.9	212.8
35°	402.0	337.9	254.8	196.8	176.2
37.5°	379.1	310.4	222.0	163.2	141.9
40°	355.4	283.7	192.2	130.4	106.8
42.5°	332.6	257.0	162.5	98.4	72.5
45°	307.4	230.3	134.2	64.8	42.7
47.5°	283.7	204.4	105.3	37.4	22.1
50°	257.0	177.7	77.8	19.8	14.5
52.5°	231.9	151.8	51.9	13.0	11.4
55°	206.7	126.6	30.5	10.7	9.2
57.5°	177.7	102.2	16.8	8.4	6.9
60°	152.5	80.1	11.4	6.1	5.3
62.5°	123.6	58.7	8.4	4.6	3.8
65°	97.6	38.9	6.1	3.1	2.3
67.5°	72.5	22.9	3.8	1.5	1.5
70°	48.1	12.2	2.3	0.8	0.8
72.5°	25.2	5.3	1.5	0.8	0.8
75°	7.6	2.3	0.8	0.8	0.8
77.5°	0.0	0.8	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1061794  
 CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-BVL-B

**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	13.74	15.01	14.11	15.32	15.63	0.00	0.00	0.00	0.00	0.00
	3H	14.33	15.44	14.71	15.77	16.14	0.00	0.00	0.00	0.00	0.00
	4H	14.29	15.32	14.70	15.68	16.06	0.00	0.00	0.00	0.00	0.00
	6H	14.21	15.15	14.62	15.52	15.92	0.00	0.00	0.00	0.00	0.00
	8H	14.16	15.05	14.59	15.44	15.85	0.00	0.00	0.00	0.00	0.00
	12H	14.11	14.97	14.55	15.35	15.78	0.00	0.00	0.00	0.00	0.00
4H	2H	13.52	14.55	13.92	14.90	15.28	0.00	0.00	0.00	0.00	0.00
	3H	14.11	14.94	14.52	15.35	15.75	0.00	0.00	0.00	0.00	0.00
	4H	14.06	14.80	14.49	15.22	15.67	0.00	0.00	0.00	0.00	0.00
	6H	13.97	14.61	14.44	15.06	15.52	0.00	0.00	0.00	0.00	0.00
	8H	13.91	14.50	14.38	14.95	15.43	0.00	0.00	0.00	0.00	0.00
	12H	13.86	14.38	14.35	14.87	15.34	0.00	0.00	0.00	0.00	0.00
8H	4H	13.91	14.51	14.38	14.95	15.43	0.00	0.00	0.00	0.00	0.00
	6H	13.80	14.29	14.31	14.78	15.27	0.00	0.00	0.00	0.00	0.00
	8H	13.74	14.17	14.26	14.69	15.18	0.00	0.00	0.00	0.00	0.00
	12H	13.69	14.07	14.21	14.57	15.14	0.00	0.00	0.00	0.00	0.00
12H	4H	13.86	14.38	14.35	14.87	15.34	0.00	0.00	0.00	0.00	0.00
	6H	13.74	14.17	14.26	14.69	15.18	0.00	0.00	0.00	0.00	0.00
	8H	13.69	14.07	14.21	14.57	15.14	0.00	0.00	0.00	0.00	0.00