

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: P1061783

Luminaire Tested: S125RDRP-S850D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061783  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S850D840-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

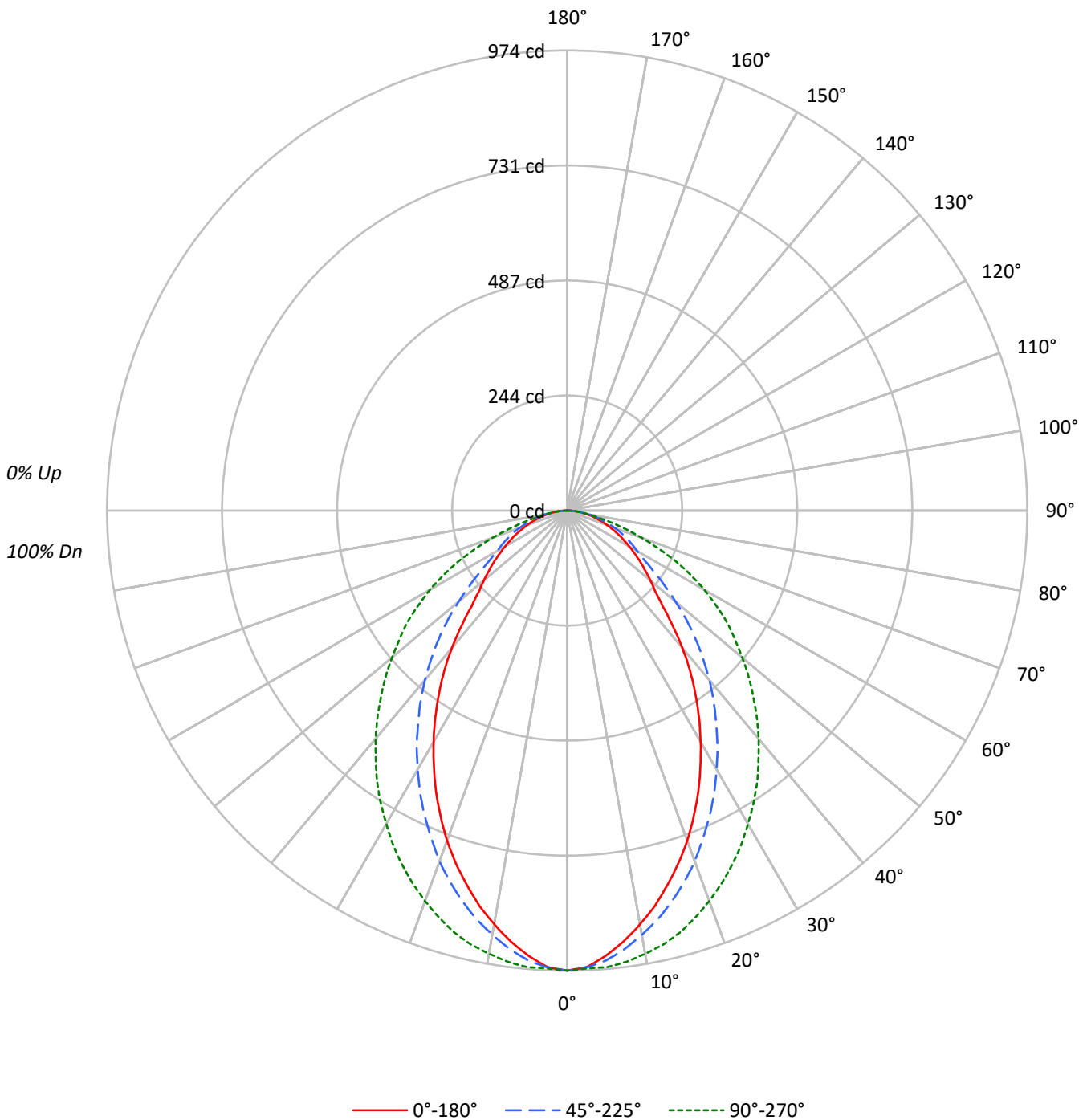
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1825.5 lumens  
Efficiency: N/A  
Efficacy: 70.8 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
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

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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	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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86													86															
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74													74															
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64													64															
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44													44															
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40													40															
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36													36															
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33													33															
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30													30															

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

	0°	45°	90°
0°	6705	6705	6705
5°	6536	6603	6704
10°	6217	6373	6659
15°	5846	6102	6588
20°	5446	5788	6443
25°	4989	5417	6282
30°	4494	5027	6087
35°	3974	4620	5895
40°	3410	4206	5666
45°	2785	3742	5428
50°	2470	3209	5179
55°	2265	2662	4964
60°	2090	2358	4621
65°	1950	2266	4120
70°	1822	2154	3368
75°	1681	2019	2485
80°	1582	1891	1812
85°	1461	1841	1540

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5428 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.1	4.9
10°-20°	242.7	13.3
20°-30°	333.6	18.3
30°-40°	353.6	19.4
40°-50°	308.6	16.9
50°-60°	234.5	12.8
60°-70°	157.1	8.6
70°-80°	81.0	4.4
80°-90°	24.3	1.3
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°	666.5	36.5
0°-40°	1020.0	55.9
0°-60°	1563.2	85.6
0°-90°	1825.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1825.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	946	955	955	962	970	88
15°	820	836	856	894	924	230
25°	657	677	713	772	827	301
35°	473	500	550	628	701	295
45°	286	314	384	476	557	226
55°	189	195	222	326	414	169
65°	120	123	139	186	253	119
75°	63	67	76	81	93	68
85°	18	23	23	21	20	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	973.8	973.8	973.8	973.8	973.8
2.5°	967.0	973.8	968.0	968.0	969.9
5°	945.6	955.3	955.3	962.1	969.9
7.5°	919.3	930.0	935.9	951.4	963.1
10°	889.2	900.8	911.5	934.9	952.4
12.5°	857.1	869.7	886.3	916.4	940.7
15°	820.1	835.7	856.1	894.0	924.2
17.5°	783.1	798.7	824.0	868.7	902.8
20°	743.2	759.8	789.9	838.6	879.4
22.5°	700.4	718.9	751.0	806.5	854.2
25°	656.7	677.1	713.1	772.4	826.9
27.5°	610.9	635.3	674.2	737.4	797.7
30°	565.2	589.5	632.3	701.4	765.6
32.5°	519.5	545.8	592.5	665.4	734.5
35°	472.8	500.0	549.7	627.5	701.4
37.5°	427.1	454.3	509.8	590.5	665.4
40°	379.4	407.6	467.9	552.6	630.4
42.5°	330.8	360.9	426.1	513.7	594.4
45°	286.0	314.2	384.3	475.7	557.4
47.5°	252.9	271.4	342.4	436.8	521.4
50°	230.6	240.3	299.6	398.9	483.5
52.5°	208.2	216.0	259.7	360.0	447.5
55°	188.7	194.6	221.8	325.9	413.5
57.5°	169.3	175.1	192.6	291.9	373.6
60°	151.8	156.6	171.2	255.9	335.6
62.5°	135.2	139.1	154.7	221.8	294.8
65°	119.7	122.6	139.1	185.8	252.9
67.5°	104.1	107.0	123.6	151.8	208.2
70°	90.5	91.4	107.0	123.6	167.3
72.5°	76.9	77.8	90.5	100.2	128.4
75°	63.2	67.1	75.9	80.7	93.4
77.5°	51.6	56.4	61.3	63.2	63.2
80°	39.9	45.7	47.7	47.7	45.7
82.5°	29.2	34.0	35.0	33.1	31.1
85°	18.5	23.3	23.3	21.4	19.5
87.5°	8.8	12.6	12.6	11.7	8.8
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	13.22	14.71	13.58	15.03	15.34	17.15	18.64	17.51	18.96	19.27
	3H	14.79	16.13	15.17	16.46	16.82	18.57	19.91	18.95	20.24	20.60
	4H	15.40	16.66	15.80	17.01	17.39	18.98	20.24	19.38	20.59	20.97
	6H	15.90	17.06	16.31	17.43	17.82	19.20	20.36	19.61	20.73	21.12
	8H	16.07	17.18	16.50	17.57	17.97	19.26	20.36	19.68	20.75	21.16
	12H	16.19	17.25	16.63	17.64	18.07	19.29	20.35	19.72	20.73	21.16
4H	2H	13.95	15.21	14.36	15.56	15.94	17.27	18.53	17.67	18.88	19.26
	3H	15.73	16.78	16.14	17.18	17.58	18.88	19.93	19.29	20.33	20.73
	4H	16.47	17.41	16.90	17.83	18.26	19.41	20.35	19.84	20.77	21.20
	6H	17.10	17.92	17.56	18.37	18.83	19.75	20.57	20.21	21.01	21.47
	8H	17.33	18.10	17.80	18.54	19.01	19.85	20.61	20.31	21.06	21.53
	12H	17.51	18.19	17.99	18.67	19.14	19.92	20.61	20.41	21.08	21.56
8H	4H	16.87	17.63	17.33	18.08	18.55	19.52	20.28	19.98	20.72	21.19
	6H	17.66	18.29	18.15	18.78	19.26	19.95	20.59	20.45	21.08	21.56
	8H	17.98	18.55	18.49	19.06	19.55	20.11	20.68	20.63	21.19	21.68
	12H	18.25	18.76	18.76	19.25	19.81	20.25	20.75	20.76	21.24	21.81
12H	4H	16.91	17.60	17.40	18.07	18.55	19.52	20.20	20.00	20.68	21.15
	6H	17.74	18.31	18.25	18.82	19.31	19.97	20.54	20.48	21.05	21.54
	8H	18.13	18.64	18.64	19.13	19.69	20.18	20.68	20.69	21.17	21.74