

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: P1061853

Luminaire Tested: S125RDR-H1090D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

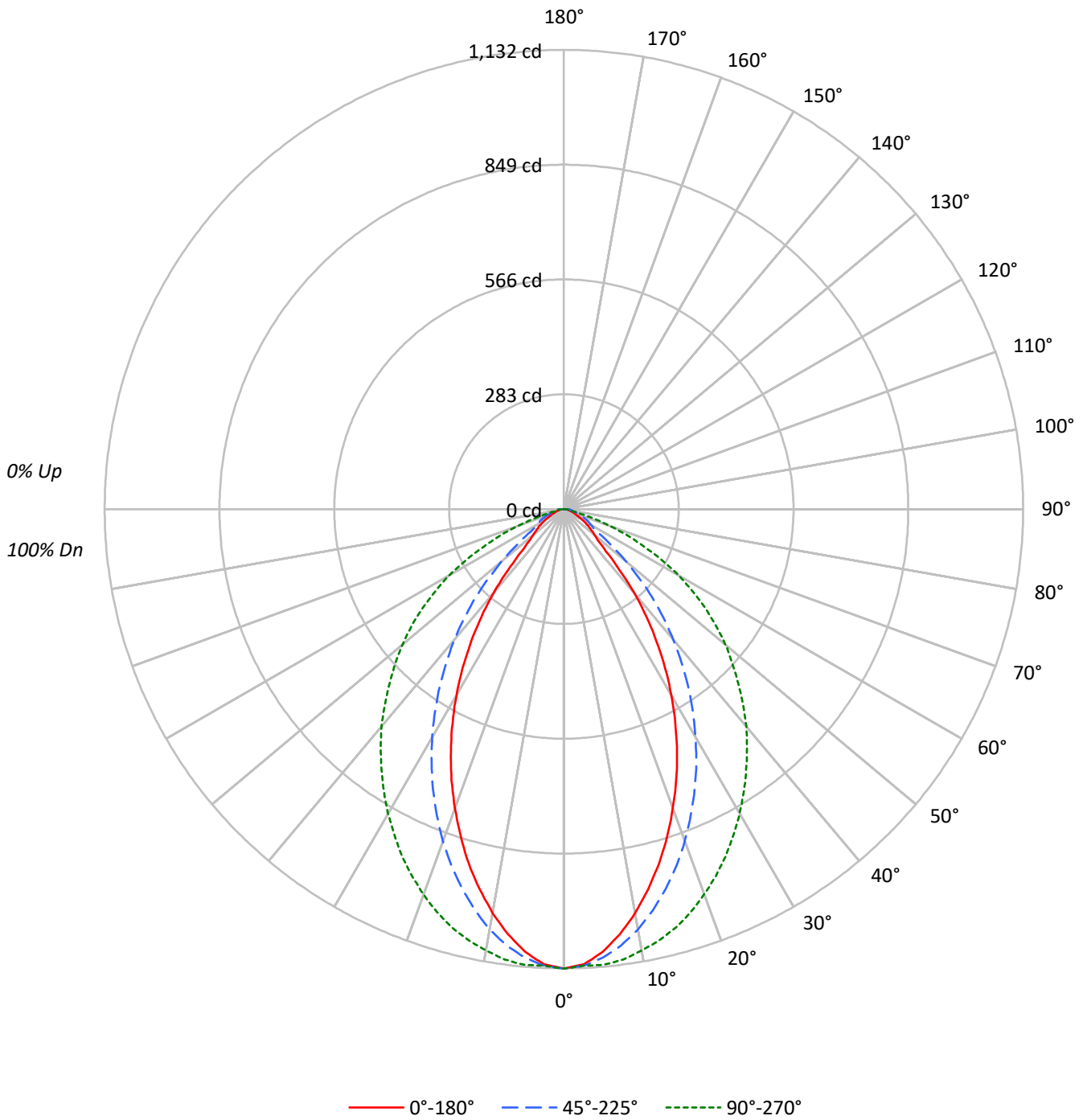
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1640.4 lumens  
Efficiency: N/A  
Efficacy: 52.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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: P1061853

CATALOG NUMBER: S125RDR-H1090D835-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1061853

CATALOG NUMBER: S125RDR-H1090D835-X4F0-XX-UDD-SVL-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	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

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

	0°	45°	90°
0°	7798	7798	7798
5°	7570	7670	7794
10°	7068	7354	7724
15°	6452	6906	7609
20°	5750	6385	7408
25°	5010	5797	7169
30°	4211	5157	6889
35°	3349	4482	6586
40°	2412	3764	6285
45°	1429	2988	5918
50°	1057	2127	5569
55°	896	1314	5099
60°	730	1060	4492
65°	569	981	3548
70°	485	848	2373
75°	447	737	960
80°	476	765	666
85°	569	1138	758

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5918 cd/sqm



TEST NUMBER: P1061853

CATALOG NUMBER: S125RDR-H1090D835-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.4	6.4
10°-20°	274.1	16.7
20°-30°	358.3	21.8
30°-40°	349.1	21.3
40°-50°	261.8	16.0
50°-60°	164.1	10.0
60°-70°	85.4	5.2
70°-80°	30.9	1.9
80°-90°	12.2	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°	736.8	44.9
0°-40°	1085.9	66.2
0°-60°	1511.8	92.2
0°-90°	1640.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1640.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1095	1110	1110	1118	1128	102
15°	905	932	969	1029	1068	252
25°	660	696	763	866	944	301
35°	398	440	533	675	784	248
45°	147	190	307	474	608	123
55°	75	78	110	286	425	67
65°	35	37	60	116	218	36
75°	17	23	28	29	36	18
85°	7	12	14	13	10	8
90°	0	0	0	0	0	



TEST NUMBER: P1061853

CATALOG NUMBER: S125RDR-H1090D835-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1132.5	1132.5	1132.5	1132.5	1132.5
2.5°	1122.9	1133.7	1126.5	1126.5	1126.5
5°	1095.2	1109.7	1109.7	1118.1	1127.7
7.5°	1056.7	1073.6	1084.4	1104.8	1119.3
10°	1011.0	1031.4	1051.9	1085.6	1104.8
12.5°	959.2	983.3	1012.2	1059.1	1088.0
15°	905.1	931.5	968.8	1029.0	1067.5
17.5°	846.1	877.4	921.9	994.1	1041.1
20°	784.7	816.0	871.4	953.2	1011.0
22.5°	723.3	757.0	817.2	909.9	978.5
25°	659.5	695.6	763.0	866.5	943.6
27.5°	594.5	631.9	706.5	822.0	905.1
30°	529.6	568.1	648.7	773.9	866.5
32.5°	464.6	505.5	590.9	724.5	825.6
35°	398.4	440.5	533.2	675.2	783.5
37.5°	334.6	376.7	475.4	624.6	741.4
40°	268.4	314.1	418.8	574.1	699.3
42.5°	203.4	250.3	362.3	523.5	653.5
45°	146.8	190.2	306.9	474.2	607.8
47.5°	113.1	137.2	250.3	423.6	563.3
50°	98.7	105.9	198.6	376.7	519.9
52.5°	85.5	90.3	149.2	333.4	473.0
55°	74.6	78.2	109.5	286.4	424.8
57.5°	62.6	67.4	86.7	240.7	375.5
60°	53.0	55.4	77.0	198.6	326.2
62.5°	43.3	45.7	68.6	156.5	270.8
65°	34.9	37.3	60.2	115.5	217.8
67.5°	28.9	30.1	50.5	81.8	167.3
70°	24.1	25.3	42.1	56.6	117.9
72.5°	20.5	24.1	33.7	40.9	74.6
75°	16.8	22.9	27.7	28.9	36.1
77.5°	14.4	21.7	22.9	22.9	20.5
80°	12.0	18.1	19.3	18.1	16.8
82.5°	9.6	14.4	15.6	15.6	13.2
85°	7.2	12.0	14.4	13.2	9.6
87.5°	4.8	10.8	12.0	10.8	7.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1061853  
 CATALOG NUMBER: S125RDR-H1090D835-X4F0-XX-UDD-SVL-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	7.05	8.41	7.42	8.72	9.03	16.67	18.02	17.03	18.33	18.65
	3H	7.91	9.11	8.29	9.44	9.81	17.51	18.71	17.89	19.04	19.40
	4H	8.34	9.46	8.74	9.81	10.19	17.58	18.70	17.98	19.05	19.43
	6H	8.76	9.79	9.18	10.16	10.56	17.56	18.59	17.98	18.96	19.36
	8H	8.94	9.92	9.37	10.31	10.71	17.55	18.53	17.98	18.92	19.32
	12H	9.10	10.03	9.53	10.42	10.85	17.54	18.47	17.97	18.85	19.28
4H	2H	8.02	9.14	8.42	9.49	9.87	16.53	17.65	16.93	18.00	18.38
	3H	9.07	9.99	9.48	10.39	10.79	17.44	18.36	17.85	18.76	19.16
	4H	9.63	10.45	10.07	10.87	11.31	17.54	18.36	17.98	18.78	19.22
	6H	10.23	10.94	10.70	11.39	11.85	17.57	18.28	18.03	18.72	19.19
	8H	10.47	11.13	10.94	11.58	12.05	17.57	18.23	18.04	18.68	19.15
	12H	10.69	11.28	11.18	11.76	12.24	17.58	18.17	18.07	18.65	19.12
8H	4H	10.11	10.77	10.57	11.21	11.68	17.47	18.13	17.93	18.57	19.04
	6H	10.92	11.46	11.42	11.96	12.44	17.52	18.06	18.02	18.56	19.04
	8H	11.30	11.78	11.82	12.30	12.79	17.55	18.04	18.07	18.55	19.05
	12H	11.69	12.12	12.20	12.61	13.18	17.62	18.05	18.13	18.54	19.11
12H	4H	10.16	10.74	10.64	11.22	11.70	17.43	18.02	17.92	18.50	18.97
	6H	11.04	11.53	11.56	12.04	12.53	17.49	17.97	18.01	18.49	18.98
	8H	11.53	11.96	12.04	12.45	13.02	17.56	17.99	18.07	18.48	19.05