

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: P1061913

Luminaire Tested: S125RDR-H1090D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061913  
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-H1090D950-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: -

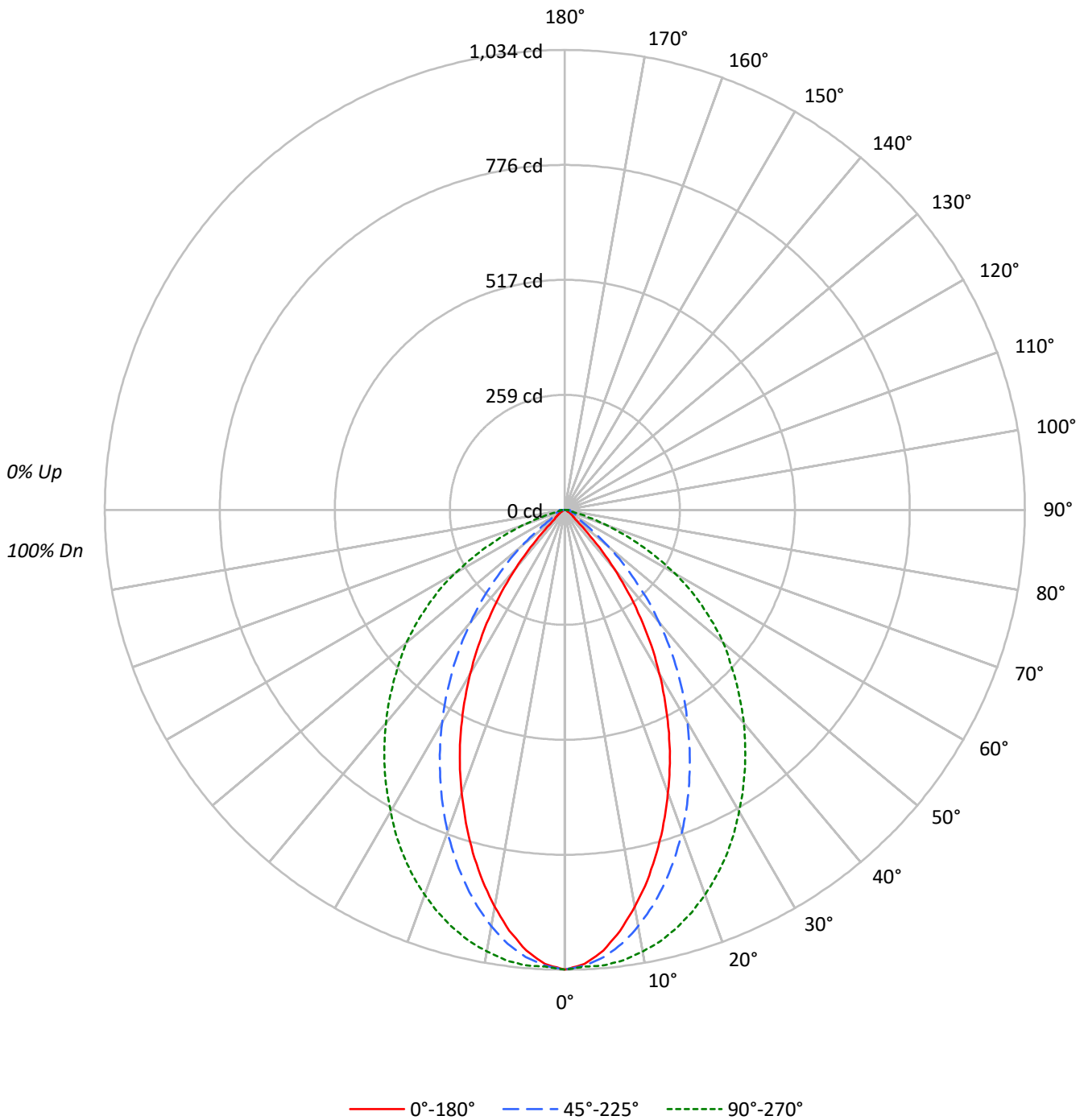
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1337.1 lumens  
Efficiency: N/A  
Efficacy: 42.9 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): 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: P1061913

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot



TEST NUMBER: P1061913

CATALOG NUMBER: S125RDR-H1090D950-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	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	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80
3	98	89	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	67	74	70	67	65
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38

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

	0°	45°	90°
0°	7116	7116	7116
5°	6874	6977	7104
10°	6334	6647	7049
15°	5689	6188	6933
20°	4964	5646	6748
25°	4205	5034	6517
30°	3378	4382	6227
35°	2500	3697	5936
40°	1549	2952	5625
45°	604	2158	5289
50°	283	1353	4982
55°	206	579	4522
60°	142	412	3922
65°	93	430	3050
70°	93	393	1918
75°	122	396	612
80°	182	456	408
85°	269	908	632

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5289 cd/sqm



TEST NUMBER: P1061913

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.8	7.1
10°-20°	245.6	18.4
20°-30°	312.8	23.4
30°-40°	291.1	21.8
40°-50°	200.4	15.0
50°-60°	113.4	8.5
60°-70°	53.6	4.0
70°-80°	16.7	1.3
80°-90°	8.7	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°	653.1	48.8
0°-40°	944.2	70.6
0°-60°	1258.1	94.1
0°-90°	1337.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1337.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	994	1008	1009	1019	1028	92
15°	798	824	868	934	973	222
25°	554	589	663	774	858	252
35°	297	339	440	590	706	184
45°	62	99	222	401	543	58
55°	17	20	48	231	377	16
65°	6	7	26	83	187	6
75°	5	10	15	16	23	5
85°	3	9	12	10	8	4
90°	0	0	0	0	0	



TEST NUMBER: P1061913

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1033.5	1033.5	1033.5	1033.5	1033.5
2.5°	1022.0	1032.4	1025.5	1026.6	1027.8
5°	994.5	1008.2	1009.4	1018.6	1027.8
7.5°	954.3	971.5	984.1	1006.0	1020.9
10°	906.0	926.7	950.8	986.4	1008.2
12.5°	854.4	878.5	911.8	962.3	993.3
15°	798.1	824.5	868.1	933.6	972.6
17.5°	738.4	768.2	821.1	899.2	948.5
20°	677.5	709.7	770.5	860.1	921.0
22.5°	616.7	650.0	717.7	817.6	891.1
25°	553.5	589.1	662.6	774.0	857.8
27.5°	489.2	525.9	607.5	729.2	822.2
30°	424.9	463.9	551.2	683.3	783.2
32.5°	361.7	400.8	496.1	637.3	745.3
35°	297.4	338.8	439.8	590.2	706.2
37.5°	233.1	277.9	384.7	542.0	666.0
40°	172.3	214.7	328.4	494.9	625.8
42.5°	114.8	156.2	277.9	447.9	584.5
45°	62.0	98.8	221.6	400.8	543.2
47.5°	33.3	52.8	173.4	354.8	503.0
50°	26.4	29.9	126.3	312.3	465.1
52.5°	21.8	24.1	82.7	272.2	421.4
55°	17.2	19.5	48.2	230.8	376.7
57.5°	13.8	16.1	31.0	191.8	333.0
60°	10.3	12.6	29.9	153.9	284.8
62.5°	8.0	9.2	27.6	118.3	234.3
65°	5.7	6.9	26.4	82.7	187.2
67.5°	4.6	5.7	24.1	52.8	140.1
70°	4.6	4.6	19.5	34.5	95.3
72.5°	4.6	8.0	17.2	23.0	57.4
75°	4.6	10.3	14.9	16.1	23.0
77.5°	4.6	11.5	12.6	12.6	12.6
80°	4.6	10.3	11.5	11.5	10.3
82.5°	4.6	9.2	10.3	11.5	9.2
85°	3.4	9.2	11.5	10.3	8.0
87.5°	3.4	9.2	10.3	9.2	5.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1061913  
 CATALOG NUMBER: S125RDR-H1090D950-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	16.06	17.35	16.43	17.67	17.98
	3H	0.00	0.00	0.00	0.00	0.08	16.78	17.93	17.16	18.26	18.62
	4H	0.00	0.20	0.00	0.55	0.94	16.81	17.87	17.21	18.22	18.60
	6H	0.40	1.38	0.82	1.75	2.14	16.76	17.73	17.17	18.10	18.50
	8H	1.04	1.97	1.47	2.36	2.76	16.73	17.66	17.16	18.05	18.45
	12H	1.63	2.51	2.06	2.89	3.32	16.72	17.60	17.15	17.98	18.41
4H	2H	0.57	1.64	0.98	1.99	2.37	15.85	16.92	16.26	17.27	17.65
	3H	1.38	2.25	1.80	2.66	3.06	16.61	17.48	17.02	17.88	18.29
	4H	2.39	3.16	2.82	3.58	4.03	16.64	17.41	17.08	17.83	18.28
	6H	3.67	4.34	4.13	4.78	5.25	16.62	17.29	17.08	17.73	18.20
	8H	4.25	4.87	4.72	5.32	5.79	16.60	17.23	17.07	17.67	18.14
	12H	4.81	5.36	5.30	5.84	6.32	16.61	17.16	17.10	17.64	18.12
8H	4H	3.80	4.43	4.27	4.87	5.35	16.52	17.15	16.99	17.59	18.07
	6H	5.36	5.87	5.87	6.37	6.85	16.51	17.02	17.02	17.52	18.00
	8H	6.16	6.62	6.68	7.13	7.63	16.52	16.98	17.05	17.50	17.99
	12H	7.00	7.40	7.51	7.90	8.47	16.58	16.99	17.10	17.48	18.06
12H	4H	4.03	4.57	4.51	5.06	5.53	16.48	17.03	16.97	17.51	17.99
	6H	5.74	6.19	6.26	6.71	7.20	16.47	16.92	16.99	17.44	17.93
	8H	6.73	7.13	7.24	7.63	8.20	16.51	16.92	17.03	17.41	17.98