

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: P1061902

Luminaire Tested: S125RDR-H1090D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061902  
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: S125RDR-H1090D940-X4F0-XX-UDD-BVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

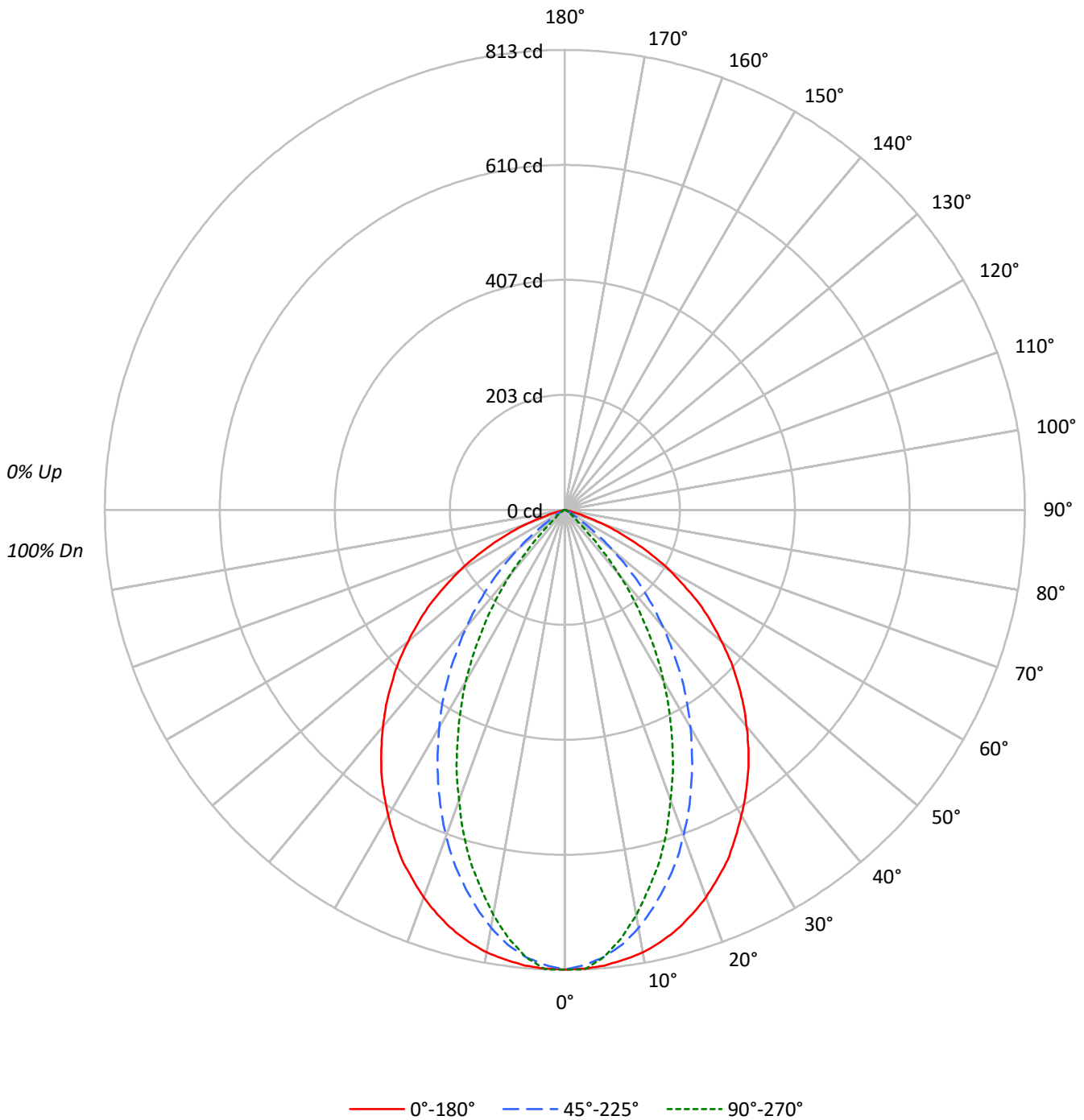
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1050.0 lumens  
Efficiency: N/A  
Efficacy: 33.7 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): 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: P1061902

CATALOG NUMBER: S125RDR-H1090D940-X4F0-XX-UDD-BVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1061902

CATALOG NUMBER: S125RDR-H1090D940-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°	5596	5596	5596
5°	5588	5484	5484
10°	5555	5248	5083
15°	5472	4899	4593
20°	5342	4494	3999
25°	5180	4024	3405
30°	4961	3529	2779
35°	4750	3010	2082
40°	4491	2429	1349
45°	4207	1837	584
50°	3870	1172	219
55°	3488	515	155
60°	2952	222	103
65°	2235	140	52
70°	1361	64	22
75°	285	29	29
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4207 cd/sqm



TEST NUMBER: P1061902

CATALOG NUMBER: S125RDR-H1090D940-X4F0-XX-UDD-BVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.9	7.1
10°-20°	195.3	18.6
20°-30°	250.8	23.9
30°-40°	236.1	22.5
40°-50°	165.0	15.7
50°-60°	88.2	8.4
60°-70°	35.2	3.3
70°-80°	4.6	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°	521.0	49.6
0°-40°	757.1	72.1
0°-60°	1010.3	96.2
0°-90°	1050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1050.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	813	813	813	813	813	
5°	808	806	793	796	793	77
15°	768	743	687	655	644	216
25°	682	622	530	472	448	313
35°	565	475	358	277	248	353
45°	432	324	189	91	60	333
55°	291	178	43	15	13	258
65°	137	55	9	4	3	137
75°	11	3	1	1	1	21
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

TEST NUMBER: P1061902

CATALOG NUMBER: S125RDR-H1090D940-X4F0-XX-UDD-BVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	812.7	812.7	812.7	812.7	812.7
2.5°	811.7	812.7	805.2	811.7	812.7
5°	808.5	806.3	793.4	795.6	793.4
7.5°	802.0	796.7	775.2	767.7	763.4
10°	794.5	782.7	750.6	734.5	727.0
12.5°	782.7	765.6	720.5	695.9	685.2
15°	767.7	743.1	687.3	655.1	644.4
17.5°	749.5	717.3	653.0	613.3	597.2
20°	729.1	686.2	613.3	566.1	545.8
22.5°	705.5	656.2	572.6	520.0	499.7
25°	681.9	621.9	529.7	471.8	448.2
27.5°	653.0	586.5	486.8	424.6	398.9
30°	624.0	551.1	443.9	376.4	349.5
32.5°	595.1	513.6	401.0	326.0	299.2
35°	565.1	475.0	358.1	276.6	247.7
37.5°	532.9	436.4	312.0	229.5	199.4
40°	499.7	398.9	270.2	183.4	150.1
42.5°	467.5	361.3	228.4	138.3	101.9
45°	432.1	323.8	188.7	91.1	60.0
47.5°	398.9	287.4	148.0	52.5	31.1
50°	361.3	249.8	109.4	27.9	20.4
52.5°	326.0	213.4	72.9	18.2	16.1
55°	290.6	178.0	42.9	15.0	12.9
57.5°	249.8	143.7	23.6	11.8	9.7
60°	214.4	112.6	16.1	8.6	7.5
62.5°	173.7	82.6	11.8	6.4	5.4
65°	137.2	54.7	8.6	4.3	3.2
67.5°	101.9	32.2	5.4	2.1	2.1
70°	67.6	17.2	3.2	1.1	1.1
72.5°	35.4	7.5	2.1	1.1	1.1
75°	10.7	3.2	1.1	1.1	1.1
77.5°	0.0	1.1	0.0	0.0	1.1
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: P1061902  
 CATALOG NUMBER: S125RDR-H1090D940-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	14.93	16.19	15.29	16.50	16.82	0.00	0.00	0.00	0.00	0.00
	3H	15.51	16.62	15.89	16.96	17.32	0.00	0.00	0.00	0.00	0.00
	4H	15.48	16.51	15.88	16.86	17.24	0.00	0.00	0.00	0.00	0.00
	6H	15.39	16.34	15.81	16.71	17.10	0.00	0.00	0.00	0.00	0.00
	8H	15.34	16.24	15.78	16.63	17.03	0.00	0.00	0.00	0.00	0.00
	12H	15.30	16.15	15.73	16.53	16.96	0.00	0.00	0.00	0.00	0.00
4H	2H	14.70	15.73	15.10	16.08	16.47	0.00	0.00	0.00	0.00	0.00
	3H	15.29	16.13	15.71	16.53	16.94	0.00	0.00	0.00	0.00	0.00
	4H	15.24	15.98	15.68	16.41	16.85	0.00	0.00	0.00	0.00	0.00
	6H	15.16	15.79	15.62	16.24	16.71	0.00	0.00	0.00	0.00	0.00
	8H	15.10	15.69	15.57	16.14	16.61	0.00	0.00	0.00	0.00	0.00
	12H	15.04	15.57	15.53	16.05	16.53	0.00	0.00	0.00	0.00	0.00
8H	4H	15.10	15.69	15.57	16.14	16.61	0.00	0.00	0.00	0.00	0.00
	6H	14.99	15.47	15.49	15.97	16.45	0.00	0.00	0.00	0.00	0.00
	8H	14.92	15.35	15.45	15.87	16.36	0.00	0.00	0.00	0.00	0.00
	12H	14.87	15.25	15.39	15.75	16.32	0.00	0.00	0.00	0.00	0.00
12H	4H	15.04	15.57	15.53	16.05	16.53	0.00	0.00	0.00	0.00	0.00
	6H	14.92	15.35	15.45	15.87	16.36	0.00	0.00	0.00	0.00	0.00
	8H	14.87	15.25	15.39	15.75	16.32	0.00	0.00	0.00	0.00	0.00