

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: P1175394

Luminaire Tested: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175394  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/18/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

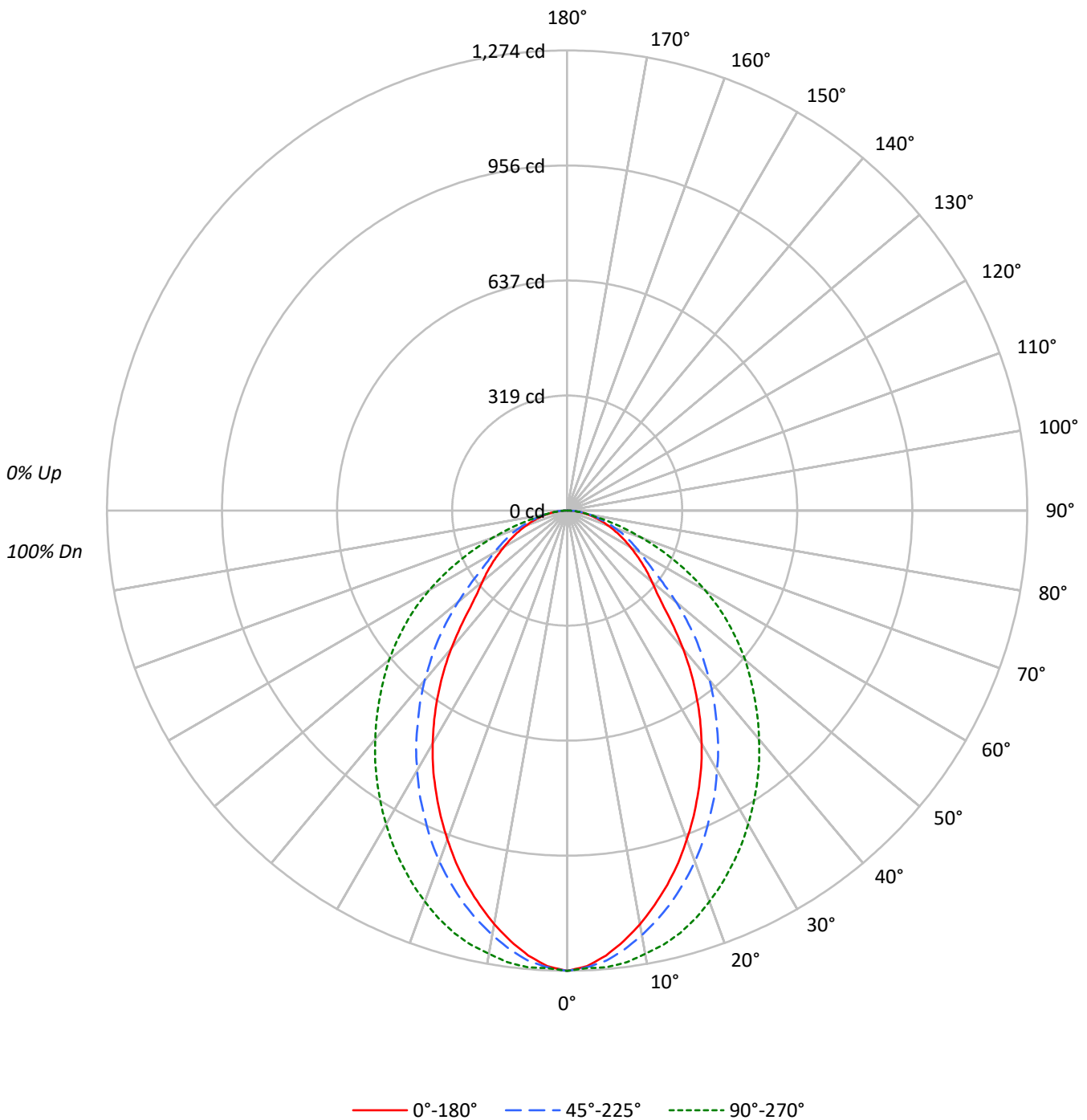
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2400.7 lumens  
Efficiency: N/A  
Efficacy: 76.9 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): 31.2  
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: P1175394

CATALOG NUMBER: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1175394

CATALOG NUMBER: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-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	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				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76					74				
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66					64				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46					44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

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

	0°	45°	90°
0°	8774	8774	8774
5°	8545	8643	8770
10°	8130	8342	8713
15°	7641	7988	8629
20°	7101	7577	8441
25°	6525	7100	8218
30°	5917	6596	7973
35°	5237	6064	7710
40°	4492	5512	7428
45°	3687	4909	7141
50°	3279	4218	6894
55°	3025	3532	6545
60°	2786	3218	6063
65°	2590	3032	5357
70°	2418	2830	4376
75°	2275	2618	3280
80°	2145	2403	2359
85°	1967	2394	1967

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7141 cd/sqm



TEST NUMBER: P1175394

CATALOG NUMBER: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.0	4.9
10°-20°	318.0	13.2
20°-30°	437.4	18.2
30°-40°	464.0	19.3
40°-50°	406.1	16.9
50°-60°	311.6	13.0
60°-70°	207.6	8.6
70°-80°	106.4	4.4
80°-90°	31.6	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°	873.4	36.4
0°-40°	1337.4	55.7
0°-60°	2055.1	85.6
0°-90°	2400.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2400.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1236	1253	1250	1259	1269	116
15°	1072	1097	1121	1174	1210	300
25°	859	888	935	1014	1082	394
35°	623	652	722	828	917	388
45°	379	410	504	630	733	299
55°	252	258	294	437	545	226
65°	159	160	186	244	329	158
75°	86	91	98	104	123	91
85°	25	28	30	29	25	28
90°	0	0	0	0	0	



TEST NUMBER: P1175394

CATALOG NUMBER: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1274.3	1274.3	1274.3	1274.3	1274.3
2.5°	1262.4	1275.4	1265.6	1266.7	1267.8
5°	1236.4	1252.7	1250.5	1259.1	1268.9
7.5°	1201.8	1219.1	1224.5	1246.2	1261.3
10°	1162.9	1182.3	1193.2	1225.6	1246.2
12.5°	1118.5	1141.2	1158.5	1200.7	1231.0
15°	1072.0	1096.9	1120.7	1173.7	1210.5
17.5°	1022.2	1047.1	1078.5	1139.1	1183.4
20°	969.2	996.3	1034.1	1099.0	1152.0
22.5°	915.1	943.3	986.5	1057.9	1118.5
25°	858.9	888.1	934.6	1013.6	1081.7
27.5°	803.7	830.8	884.9	969.2	1043.9
30°	744.2	772.4	829.7	922.7	1002.8
32.5°	684.7	712.9	778.9	876.2	960.6
35°	623.1	652.3	721.5	827.5	917.3
37.5°	561.4	591.7	668.5	777.8	873.0
40°	499.8	532.2	613.3	728.0	826.4
42.5°	437.0	471.6	557.1	679.3	781.0
45°	378.6	410.0	504.1	629.6	733.4
47.5°	336.4	354.8	447.8	578.7	688.0
50°	306.1	314.8	393.8	530.1	643.6
52.5°	279.1	284.5	340.7	484.6	595.0
55°	252.0	257.5	294.2	437.0	545.2
57.5°	226.1	229.3	259.6	389.4	495.4
60°	202.3	204.4	233.7	341.8	440.3
62.5°	180.6	181.7	208.8	293.2	385.1
65°	159.0	160.1	186.1	244.5	328.8
67.5°	139.5	139.5	164.4	200.1	274.8
70°	120.1	120.1	140.6	162.3	217.4
72.5°	102.8	104.9	119.0	130.9	169.8
75°	85.5	90.9	98.4	103.8	123.3
77.5°	69.2	75.7	79.0	81.1	82.2
80°	54.1	58.4	60.6	61.7	59.5
82.5°	40.0	43.3	44.4	44.4	41.1
85°	24.9	28.1	30.3	29.2	24.9
87.5°	11.9	16.2	17.3	15.1	11.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1175394

CATALOG NUMBER: S125RDRP-H1090D840-X4F0-XX-UDD-WVL-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	14.16	15.66	14.53	15.97	16.29	18.19	19.68	18.55	20.00	20.31
	3H	15.75	17.09	16.13	17.42	17.78	19.57	20.92	19.95	21.25	21.61
	4H	16.39	17.65	16.79	18.00	18.38	19.98	21.24	20.38	21.59	21.97
	6H	16.90	18.06	17.31	18.43	18.82	20.18	21.35	20.60	21.72	22.11
	8H	17.08	18.19	17.51	18.58	18.98	20.24	21.35	20.67	21.74	22.14
	12H	17.21	18.27	17.64	18.65	19.08	20.28	21.34	20.71	21.72	22.15
4H	2H	14.93	16.19	15.33	16.54	16.92	18.32	19.58	18.72	19.92	20.30
	3H	16.71	17.76	17.12	18.16	18.56	19.89	20.93	20.30	21.33	21.73
	4H	17.48	18.42	17.91	18.84	19.28	20.39	21.34	20.83	21.75	22.19
	6H	18.12	18.94	18.58	19.38	19.84	20.72	21.54	21.18	21.98	22.44
	8H	18.35	19.12	18.81	19.56	20.03	20.82	21.59	21.28	22.03	22.50
	12H	18.52	19.21	19.00	19.68	20.16	20.89	21.58	21.38	22.06	22.53
8H	4H	17.86	18.63	18.33	19.07	19.54	20.50	21.26	20.96	21.71	22.17
	6H	18.64	19.27	19.14	19.77	20.24	20.91	21.55	21.41	22.04	22.52
	8H	18.96	19.53	19.47	20.04	20.52	21.07	21.64	21.59	22.15	22.64
	12H	19.22	19.72	19.73	20.21	20.78	21.21	21.71	21.72	22.21	22.77
12H	4H	17.90	18.59	18.39	19.07	19.54	20.49	21.18	20.98	21.66	22.13
	6H	18.72	19.28	19.23	19.79	20.28	20.93	21.49	21.44	22.01	22.49
	8H	19.10	19.60	19.61	20.09	20.66	21.14	21.64	21.65	22.13	22.70