

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: P1061909

Luminaire Tested: S125RDRP-H1090D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061909  
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-H1090D940-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

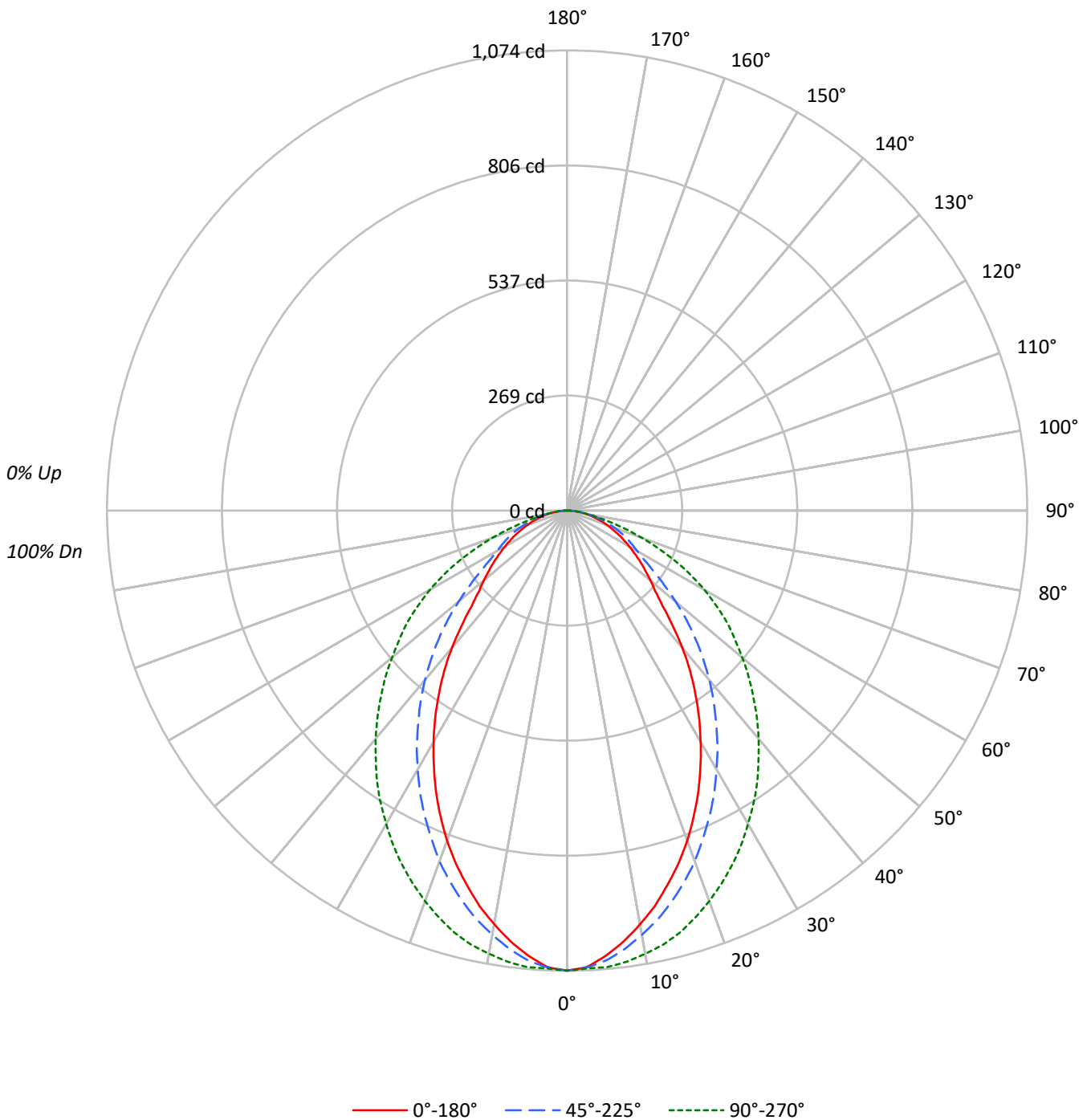
Lumens per Lamp: N/A  
Luminaire Lumens: 2013.1 lumens  
Efficiency: N/A  
Efficacy: 64.5 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

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

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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																												
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	74	69	77	72	68	74	70	66	64																												
4	86	75	67	61	84	74	67	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	48	59	52	47	58	52	47	56	51	46	44																												
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																												
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36																												
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30																												

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

	0°	45°	90°
0°	7393	7393	7393
5°	7207	7281	7393
10°	6855	7028	7342
15°	6447	6729	7264
20°	6005	6383	7106
25°	5501	5974	6928
30°	4955	5544	6713
35°	4383	5094	6502
40°	3761	4638	6248
45°	3071	4126	5985
50°	2723	3539	5711
55°	2498	2936	5473
60°	2305	2600	5096
65°	2151	2499	4544
70°	2009	2375	3714
75°	1854	2227	2740
80°	1745	2086	1998
85°	1612	2030	1698

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5985 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.4	4.9
10°-20°	267.7	13.3
20°-30°	367.9	18.3
30°-40°	389.9	19.4
40°-50°	340.3	16.9
50°-60°	258.6	12.8
60°-70°	173.2	8.6
70°-80°	89.3	4.4
80°-90°	26.8	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°	734.9	36.5
0°-40°	1124.8	55.9
0°-60°	1723.7	85.6
0°-90°	2013.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2013.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1074	1074	1074	1074	1074	
5°	1043	1054	1054	1061	1070	98
15°	904	922	944	986	1019	254
25°	724	747	786	852	912	332
35°	521	551	606	692	774	325
45°	315	346	424	525	615	249
55°	208	215	245	359	456	187
65°	132	135	153	205	279	131
75°	70	74	84	89	103	75
85°	20	26	26	24	22	23
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1073.8	1073.8	1073.8	1073.8	1073.8
2.5°	1066.3	1073.8	1067.4	1067.4	1069.6
5°	1042.7	1053.5	1053.5	1061.0	1069.6
7.5°	1013.8	1025.6	1032.0	1049.2	1062.0
10°	980.5	993.4	1005.2	1030.9	1050.2
12.5°	945.1	959.1	977.3	1010.6	1037.4
15°	904.4	921.5	944.0	985.9	1019.1
17.5°	863.6	880.7	908.6	958.0	995.5
20°	819.6	837.8	871.1	924.7	969.8
22.5°	772.4	792.8	828.2	889.3	941.9
25°	724.1	746.7	786.3	851.8	911.9
27.5°	673.7	700.5	743.4	813.2	879.7
30°	623.3	650.1	697.3	773.5	844.3
32.5°	572.9	601.8	653.3	733.8	809.9
35°	521.4	551.4	606.1	691.9	773.5
37.5°	470.9	501.0	562.1	651.2	733.8
40°	418.4	449.5	516.0	609.3	695.2
42.5°	364.7	398.0	469.9	566.4	655.5
45°	315.4	346.5	423.7	524.6	614.7
47.5°	278.9	299.3	377.6	481.7	575.0
50°	254.2	265.0	330.4	439.8	533.2
52.5°	229.6	238.2	286.4	396.9	493.5
55°	208.1	214.6	244.6	359.4	455.9
57.5°	186.7	193.1	212.4	321.8	411.9
60°	167.4	172.7	188.8	282.1	370.1
62.5°	149.1	153.4	170.6	244.6	325.1
65°	132.0	135.2	153.4	204.9	278.9
67.5°	114.8	118.0	136.2	167.4	229.6
70°	99.8	100.8	118.0	136.2	184.5
72.5°	84.7	85.8	99.8	110.5	141.6
75°	69.7	74.0	83.7	89.0	103.0
77.5°	56.9	62.2	67.6	69.7	69.7
80°	44.0	50.4	52.6	52.6	50.4
82.5°	32.2	37.5	38.6	36.5	34.3
85°	20.4	25.7	25.7	23.6	21.5
87.5°	9.7	13.9	13.9	12.9	9.7
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	13.56	15.05	13.92	15.37	15.68	17.48	18.98	17.85	19.29	19.61
	3H	15.13	16.47	15.51	16.80	17.16	18.91	20.25	19.29	20.58	20.94
	4H	15.74	17.00	16.14	17.35	17.73	19.32	20.58	19.72	20.93	21.31
	6H	16.24	17.40	16.65	17.77	18.16	19.54	20.70	19.95	21.07	21.46
	8H	16.41	17.52	16.84	17.91	18.31	19.60	20.70	20.02	21.09	21.49
	12H	16.53	17.59	16.96	17.98	18.41	19.63	20.69	20.06	21.07	21.50
4H	2H	14.30	15.55	14.70	15.90	16.28	17.61	18.87	18.01	19.22	19.60
	3H	16.07	17.12	16.48	17.52	17.92	19.22	20.27	19.63	20.67	21.07
	4H	16.81	17.75	17.24	18.17	18.60	19.75	20.69	20.18	21.10	21.54
	6H	17.44	18.26	17.90	18.71	19.17	20.09	20.91	20.55	21.35	21.81
	8H	17.67	18.44	18.14	18.88	19.35	20.19	20.95	20.65	21.40	21.87
	12H	17.85	18.53	18.33	19.01	19.48	20.26	20.95	20.75	21.42	21.90
8H	4H	17.21	17.97	17.67	18.42	18.89	19.85	20.62	20.32	21.06	21.53
	6H	18.00	18.63	18.49	19.12	19.60	20.29	20.93	20.79	21.42	21.89
	8H	18.32	18.89	18.83	19.40	19.89	20.45	21.02	20.97	21.53	22.02
	12H	18.59	19.10	19.10	19.59	20.15	20.59	21.09	21.10	21.58	22.15
12H	4H	17.25	17.94	17.74	18.41	18.89	19.85	20.54	20.34	21.02	21.49
	6H	18.08	18.65	18.59	19.16	19.65	20.31	20.88	20.82	21.39	21.88
	8H	18.47	18.98	18.98	19.47	20.03	20.52	21.02	21.03	21.51	22.08