

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: P1062152

Luminaire Tested: S125RDR-H610D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062152  
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: S125RDR-H610D940-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: -

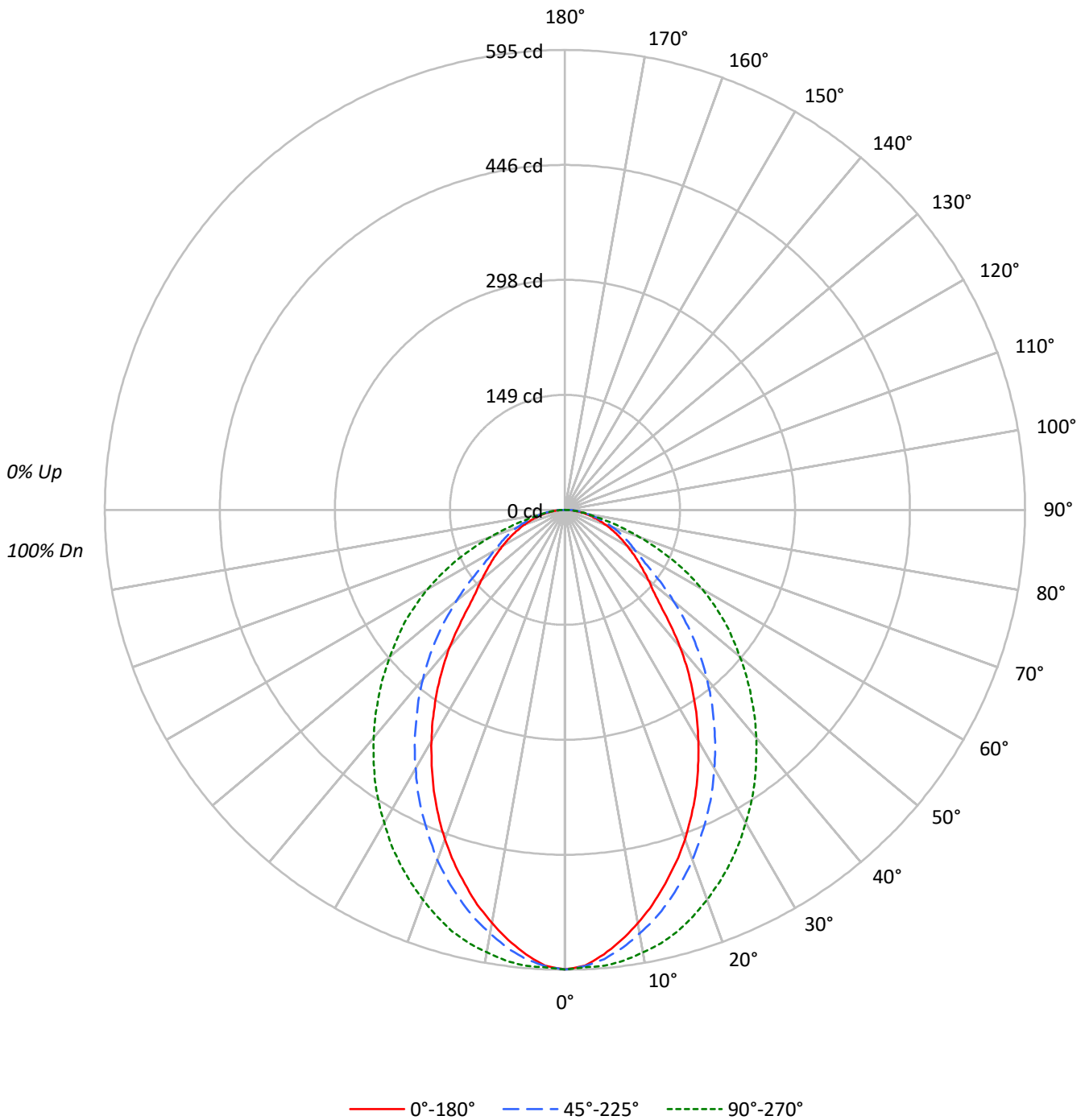
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1114.6 lumens  
Efficiency: N/A  
Efficacy: 64.1 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): 17.4  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									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°	4094	4094	4094
5°	3990	4032	4093
10°	3796	3891	4066
15°	3569	3726	4022
20°	3325	3534	3934
25°	3046	3308	3836
30°	2744	3070	3717
35°	2427	2821	3599
40°	2082	2568	3459
45°	1700	2284	3314
50°	1508	1959	3162
55°	1383	1625	3030
60°	1277	1439	2822
65°	1191	1383	2515
70°	1111	1315	2057
75°	1027	1232	1516
80°	967	1154	1106
85°	893	1130	940

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3314 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.0	4.9
10°-20°	148.2	13.3
20°-30°	203.7	18.3
30°-40°	215.9	19.4
40°-50°	188.4	16.9
50°-60°	143.2	12.8
60°-70°	95.9	8.6
70°-80°	49.4	4.4
80°-90°	14.8	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°	406.9	36.5
0°-40°	622.8	55.9
0°-60°	954.4	85.6
0°-90°	1114.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1114.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	577	583	583	587	592	54
15°	501	510	523	546	564	140
25°	401	413	435	472	505	184
35°	289	305	336	383	428	180
45°	175	192	235	290	340	138
55°	115	119	135	199	252	103
65°	73	75	85	113	154	73
75°	39	41	46	49	57	41
85°	11	14	14	13	12	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	594.6	594.6	594.6	594.6	594.6
2.5°	590.4	594.6	591.0	591.0	592.2
5°	577.3	583.3	583.3	587.4	592.2
7.5°	561.3	567.8	571.4	580.9	588.0
10°	542.9	550.0	556.5	570.8	581.5
12.5°	523.3	531.0	541.1	559.5	574.4
15°	500.7	510.2	522.7	545.9	564.3
17.5°	478.1	487.6	503.1	530.4	551.2
20°	453.8	463.9	482.3	512.0	536.9
22.5°	427.7	438.9	458.5	492.4	521.5
25°	400.9	413.4	435.4	471.6	504.9
27.5°	373.0	387.9	411.6	450.2	487.1
30°	345.1	359.9	386.1	428.2	467.5
32.5°	317.2	333.2	361.7	406.3	448.4
35°	288.7	305.3	335.6	383.1	428.2
37.5°	260.8	277.4	311.2	360.5	406.3
40°	231.6	248.9	285.7	337.4	384.9
42.5°	201.9	220.4	260.2	313.6	362.9
45°	174.6	191.9	234.6	290.4	340.3
47.5°	154.4	165.7	209.1	266.7	318.4
50°	140.8	146.7	182.9	243.5	295.2
52.5°	127.1	131.9	158.6	219.8	273.2
55°	115.2	118.8	135.4	199.0	252.4
57.5°	103.4	106.9	117.6	178.2	228.1
60°	92.7	95.6	104.5	156.2	204.9
62.5°	82.6	84.9	94.4	135.4	180.0
65°	73.1	74.8	84.9	113.4	154.4
67.5°	63.6	65.3	75.4	92.7	127.1
70°	55.2	55.8	65.3	75.4	102.2
72.5°	46.9	47.5	55.2	61.2	78.4
75°	38.6	41.0	46.3	49.3	57.0
77.5°	31.5	34.5	37.4	38.6	38.6
80°	24.4	27.9	29.1	29.1	27.9
82.5°	17.8	20.8	21.4	20.2	19.0
85°	11.3	14.3	14.3	13.1	11.9
87.5°	5.3	7.7	7.7	7.1	5.3
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	11.50	13.00	11.87	13.31	13.63	15.43	16.93	15.80	17.24	17.56
	3H	13.07	14.42	13.45	14.74	15.11	16.85	18.20	17.23	18.52	18.89
	4H	13.69	14.95	14.09	15.30	15.67	17.27	18.53	17.67	18.88	19.26
	6H	14.18	15.35	14.60	15.71	16.11	17.49	18.65	17.90	19.01	19.41
	8H	14.36	15.46	14.78	15.85	16.26	17.54	18.65	17.97	19.04	19.44
	12H	14.48	15.54	14.91	15.92	16.35	17.58	18.64	18.01	19.02	19.45
4H	2H	12.24	13.50	12.64	13.85	14.23	15.56	16.82	15.96	17.17	17.54
	3H	14.02	15.06	14.43	15.46	15.86	17.17	18.21	17.58	18.61	19.01
	4H	14.75	15.70	15.19	16.11	16.55	17.69	18.63	18.13	19.05	19.49
	6H	15.39	16.21	15.85	16.65	17.11	18.04	18.85	18.49	19.30	19.76
	8H	15.62	16.38	16.08	16.83	17.30	18.14	18.90	18.60	19.34	19.81
	12H	15.79	16.48	16.28	16.96	17.43	18.21	18.89	18.69	19.37	19.84
8H	4H	15.15	15.92	15.62	16.36	16.83	17.80	18.57	18.26	19.01	19.48
	6H	15.94	16.57	16.44	17.07	17.54	18.24	18.87	18.74	19.36	19.84
	8H	16.27	16.83	16.78	17.34	17.83	18.40	18.96	18.91	19.47	19.96
	12H	16.54	17.04	17.05	17.54	18.10	18.53	19.03	19.04	19.53	20.09
12H	4H	15.20	15.88	15.68	16.36	16.83	17.80	18.48	18.28	18.96	19.43
	6H	16.03	16.59	16.54	17.10	17.59	18.26	18.82	18.77	19.33	19.82
	8H	16.42	16.92	16.93	17.41	17.98	18.46	18.97	18.97	19.46	20.02