

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: P1175385

Luminaire Tested: S125RDRP-S850D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175385  
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-S850D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

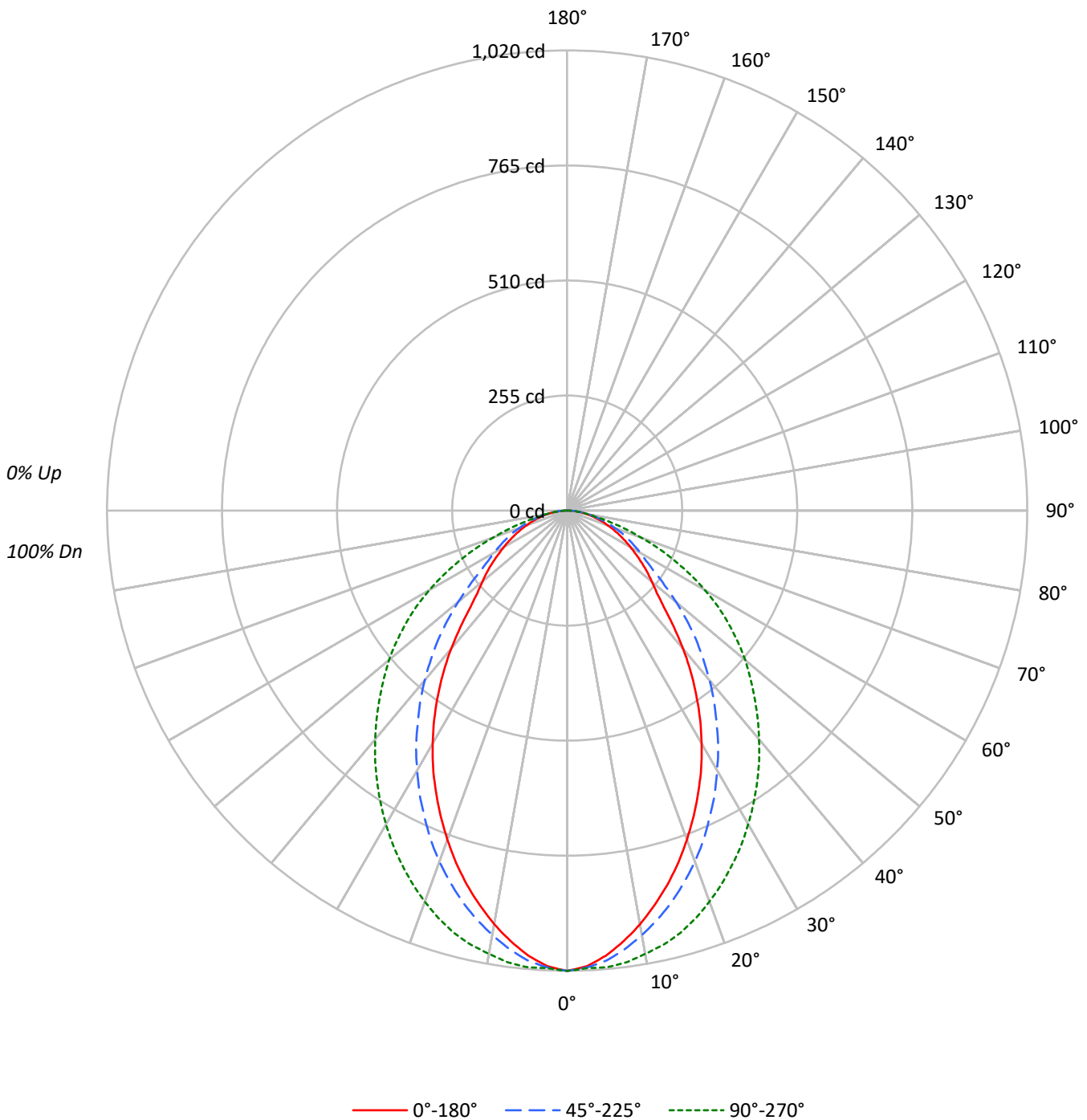
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1922.3 lumens  
Efficiency: N/A  
Efficacy: 74.5 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): 25.8  
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	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	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°	7026	7026	7026
5°	6843	6921	7022
10°	6510	6680	6976
15°	6119	6397	6909
20°	5687	6068	6759
25°	5225	5686	6581
30°	4738	5282	6384
35°	4193	4856	6174
40°	3597	4414	5948
45°	2952	3930	5719
50°	2625	3377	5521
55°	2422	2828	5241
60°	2231	2576	4854
65°	2074	2427	4290
70°	1935	2267	3505
75°	1820	2096	2626
80°	1717	1923	1887
85°	1572	1920	1572

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5719 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	4.9
10°-20°	254.6	13.2
20°-30°	350.3	18.2
30°-40°	371.5	19.3
40°-50°	325.2	16.9
50°-60°	249.5	13.0
60°-70°	166.2	8.6
70°-80°	85.2	4.4
80°-90°	25.3	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°	699.4	36.4
0°-40°	1070.9	55.7
0°-60°	1645.6	85.6
0°-90°	1922.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1922.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	990	1003	1001	1008	1016	93
15°	858	878	897	940	969	241
25°	688	711	748	812	866	316
35°	499	522	578	663	734	311
45°	303	328	404	504	587	239
55°	202	206	236	350	437	181
65°	127	128	149	196	263	127
75°	68	73	79	83	99	73
85°	20	22	24	23	20	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1020.4	1020.4	1020.4	1020.4	1020.4
2.5°	1010.8	1021.2	1013.4	1014.3	1015.2
5°	990.1	1003.0	1001.3	1008.2	1016.0
7.5°	962.3	976.2	980.5	997.8	1010.0
10°	931.2	946.7	955.4	981.4	997.8
12.5°	895.6	913.8	927.7	961.5	985.7
15°	858.4	878.3	897.4	939.8	969.3
17.5°	818.5	838.5	863.6	912.1	947.6
20°	776.1	797.8	828.1	880.0	922.5
22.5°	732.8	755.3	790.0	847.1	895.6
25°	687.8	711.1	748.4	811.6	866.2
27.5°	643.6	665.2	708.5	776.1	835.9
30°	595.9	618.5	664.4	738.9	803.0
32.5°	548.3	570.8	623.7	701.6	769.2
35°	498.9	522.3	577.7	662.6	734.5
37.5°	449.6	473.8	535.3	622.8	699.0
40°	400.2	426.2	491.1	582.9	661.8
42.5°	349.9	377.7	446.1	544.0	625.4
45°	303.2	328.3	403.6	504.1	587.3
47.5°	269.4	284.1	358.6	463.4	550.9
50°	245.1	252.1	315.3	424.4	515.4
52.5°	223.5	227.8	272.8	388.1	476.4
55°	201.8	206.2	235.6	349.9	436.6
57.5°	181.0	183.6	207.9	311.8	396.7
60°	162.0	163.7	187.1	273.7	352.5
62.5°	144.7	145.5	167.2	234.7	308.4
65°	127.3	128.2	149.0	195.8	263.3
67.5°	111.7	111.7	131.7	160.2	220.0
70°	96.1	96.1	112.6	129.9	174.1
72.5°	82.3	84.0	95.3	104.8	136.0
75°	68.4	72.8	78.8	83.2	98.7
77.5°	55.4	60.6	63.2	65.0	65.8
80°	43.3	46.8	48.5	49.4	47.6
82.5°	32.0	34.6	35.5	35.5	32.9
85°	19.9	22.5	24.3	23.4	19.9
87.5°	9.5	13.0	13.9	12.1	9.5
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	13.39	14.89	13.75	15.20	15.51	17.41	18.91	17.78	19.23	19.54
	3H	14.97	16.32	15.35	16.65	17.01	18.80	20.14	19.18	20.47	20.83
	4H	15.62	16.88	16.02	17.23	17.61	19.21	20.47	19.61	20.82	21.19
	6H	16.13	17.29	16.54	17.66	18.05	19.41	20.58	19.82	20.94	21.34
	8H	16.31	17.42	16.73	17.81	18.21	19.47	20.58	19.90	20.97	21.37
	12H	16.43	17.49	16.86	17.88	18.30	19.50	20.56	19.93	20.95	21.37
4H	2H	14.16	15.42	14.56	15.77	16.15	17.54	18.80	17.94	19.15	19.53
	3H	15.94	16.99	16.35	17.39	17.79	19.11	20.16	19.52	20.56	20.96
	4H	16.71	17.65	17.14	18.07	18.50	19.62	20.56	20.06	20.98	21.42
	6H	17.35	18.17	17.80	18.61	19.07	19.95	20.77	20.41	21.21	21.67
	8H	17.58	18.34	18.04	18.79	19.25	20.05	20.81	20.51	21.26	21.73
	12H	17.75	18.43	18.23	18.91	19.38	20.12	20.80	20.60	21.28	21.75
8H	4H	17.09	17.86	17.55	18.30	18.77	19.72	20.49	20.19	20.93	21.40
	6H	17.87	18.50	18.37	18.99	19.47	20.14	20.77	20.64	21.27	21.74
	8H	18.18	18.75	18.70	19.26	19.75	20.30	20.87	20.82	21.38	21.87
	12H	18.45	18.95	18.96	19.44	20.00	20.44	20.94	20.95	21.43	22.00
12H	4H	17.13	17.81	17.61	18.29	18.76	19.72	20.41	20.20	20.88	21.36
	6H	17.94	18.51	18.46	19.02	19.51	20.15	20.72	20.67	21.23	21.72
	8H	18.33	18.83	18.84	19.32	19.89	20.36	20.87	20.87	21.36	21.92