

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: P1175389

Luminaire Tested: S125RDRP-S850D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175389  
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-S850D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

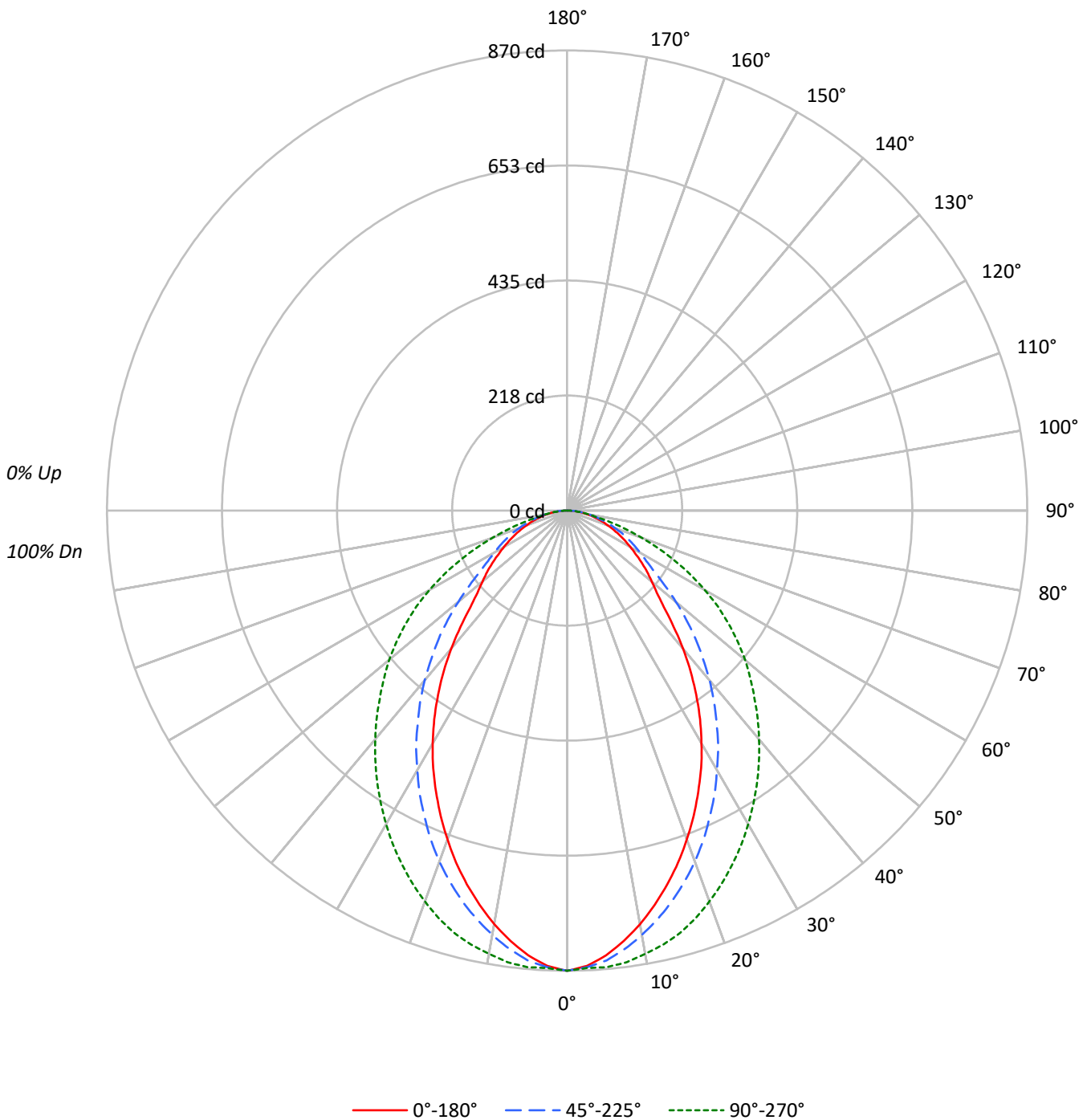
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1638.9 lumens  
Efficiency: N/A  
Efficacy: 63.5 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°	5990	5990	5990
5°	5834	5900	5987
10°	5551	5695	5948
15°	5217	5454	5891
20°	4848	5173	5763
25°	4455	4848	5610
30°	4040	4503	5443
35°	3576	4140	5263
40°	3067	3763	5071
45°	2517	3351	4875
50°	2239	2879	4707
55°	2066	2412	4468
60°	1902	2196	4139
65°	1769	2069	3658
70°	1651	1933	2987
75°	1551	1788	2240
80°	1463	1642	1610
85°	1343	1635	1343

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4875 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	4.9
10°-20°	217.1	13.2
20°-30°	298.7	18.2
30°-40°	316.8	19.3
40°-50°	277.2	16.9
50°-60°	212.7	13.0
60°-70°	141.7	8.6
70°-80°	72.7	4.4
80°-90°	21.6	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°	596.3	36.4
0°-40°	913.0	55.7
0°-60°	1403.0	85.6
0°-90°	1638.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1638.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	844	855	854	860	866	79
15°	732	749	765	801	826	205
25°	586	606	638	692	738	269
35°	425	445	493	565	626	265
45°	258	280	344	430	501	204
55°	172	176	201	298	372	154
65°	109	109	127	167	224	108
75°	58	62	67	71	84	62
85°	17	19	21	20	17	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	870.0	870.0	870.0	870.0	870.0
2.5°	861.8	870.7	864.0	864.8	865.5
5°	844.1	855.2	853.7	859.6	866.3
7.5°	820.5	832.3	836.0	850.8	861.1
10°	793.9	807.2	814.6	836.7	850.8
12.5°	763.6	779.1	790.9	819.7	840.4
15°	731.9	748.8	765.1	801.3	826.4
17.5°	697.9	714.9	736.3	777.6	807.9
20°	661.7	680.2	706.0	750.3	786.5
22.5°	624.8	644.0	673.5	722.3	763.6
25°	586.4	606.3	638.1	692.0	738.5
27.5°	548.7	567.2	604.1	661.7	712.7
30°	508.1	527.3	566.4	629.9	684.6
32.5°	467.5	486.7	531.7	598.2	655.8
35°	425.4	445.3	492.6	565.0	626.2
37.5°	383.3	404.0	456.4	531.0	596.0
40°	341.2	363.3	418.7	497.0	564.2
42.5°	298.4	322.0	380.3	463.8	533.2
45°	258.5	279.9	344.1	429.8	500.7
47.5°	229.7	242.2	305.7	395.1	469.7
50°	209.0	214.9	268.8	361.9	439.4
52.5°	190.5	194.2	232.6	330.8	406.2
55°	172.1	175.8	200.9	298.4	372.2
57.5°	154.3	156.6	177.2	265.9	338.2
60°	138.1	139.6	159.5	233.4	300.6
62.5°	123.3	124.1	142.5	200.1	262.9
65°	108.6	109.3	127.0	166.9	224.5
67.5°	95.3	95.3	112.3	136.6	187.6
70°	82.0	82.0	96.0	110.8	148.4
72.5°	70.2	71.6	81.2	89.4	115.9
75°	58.3	62.0	67.2	70.9	84.2
77.5°	47.3	51.7	53.9	55.4	56.1
80°	36.9	39.9	41.4	42.1	40.6
82.5°	27.3	29.5	30.3	30.3	28.1
85°	17.0	19.2	20.7	19.9	17.0
87.5°	8.1	11.1	11.8	10.3	8.1
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	12.84	14.33	13.20	14.65	14.96	16.86	18.36	17.23	18.67	18.99
	3H	14.42	15.77	14.80	16.10	16.46	18.25	19.59	18.63	19.92	20.28
	4H	15.07	16.33	15.47	16.68	17.05	18.65	19.91	19.05	20.26	20.64
	6H	15.57	16.74	15.99	17.11	17.50	18.86	20.02	19.27	20.39	20.78
	8H	15.76	16.86	16.18	17.25	17.66	18.92	20.02	19.34	20.41	20.82
	12H	15.88	16.94	16.31	17.32	17.75	18.95	20.01	19.38	20.39	20.82
4H	2H	13.60	14.86	14.00	15.21	15.59	16.99	18.25	17.39	18.60	18.98
	3H	15.39	16.43	15.80	16.83	17.24	18.56	19.61	18.97	20.01	20.41
	4H	16.15	17.10	16.59	17.51	17.95	19.07	20.01	19.50	20.43	20.87
	6H	16.79	17.61	17.25	18.06	18.52	19.40	20.21	19.85	20.66	21.12
	8H	17.02	17.79	17.49	18.23	18.70	19.49	20.26	19.96	20.70	21.17
	12H	17.20	17.88	17.68	18.36	18.83	19.57	20.25	20.05	20.73	21.20
8H	4H	16.54	17.30	17.00	17.75	18.22	19.17	19.94	19.63	20.38	20.85
	6H	17.32	17.95	17.81	18.44	18.92	19.59	20.22	20.09	20.71	21.19
	8H	17.63	18.20	18.15	18.71	19.20	19.75	20.32	20.26	20.83	21.31
	12H	17.89	18.39	18.40	18.89	19.45	19.89	20.39	20.40	20.88	21.45
12H	4H	16.58	17.26	17.06	17.74	18.21	19.17	19.85	19.65	20.33	20.80
	6H	17.39	17.96	17.90	18.47	18.96	19.60	20.17	20.12	20.68	21.17
	8H	17.77	18.28	18.28	18.77	19.33	19.81	20.31	20.32	20.80	21.37