

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: P1175383

Luminaire Tested: S125RDRP-S850D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175383  
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-S850D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

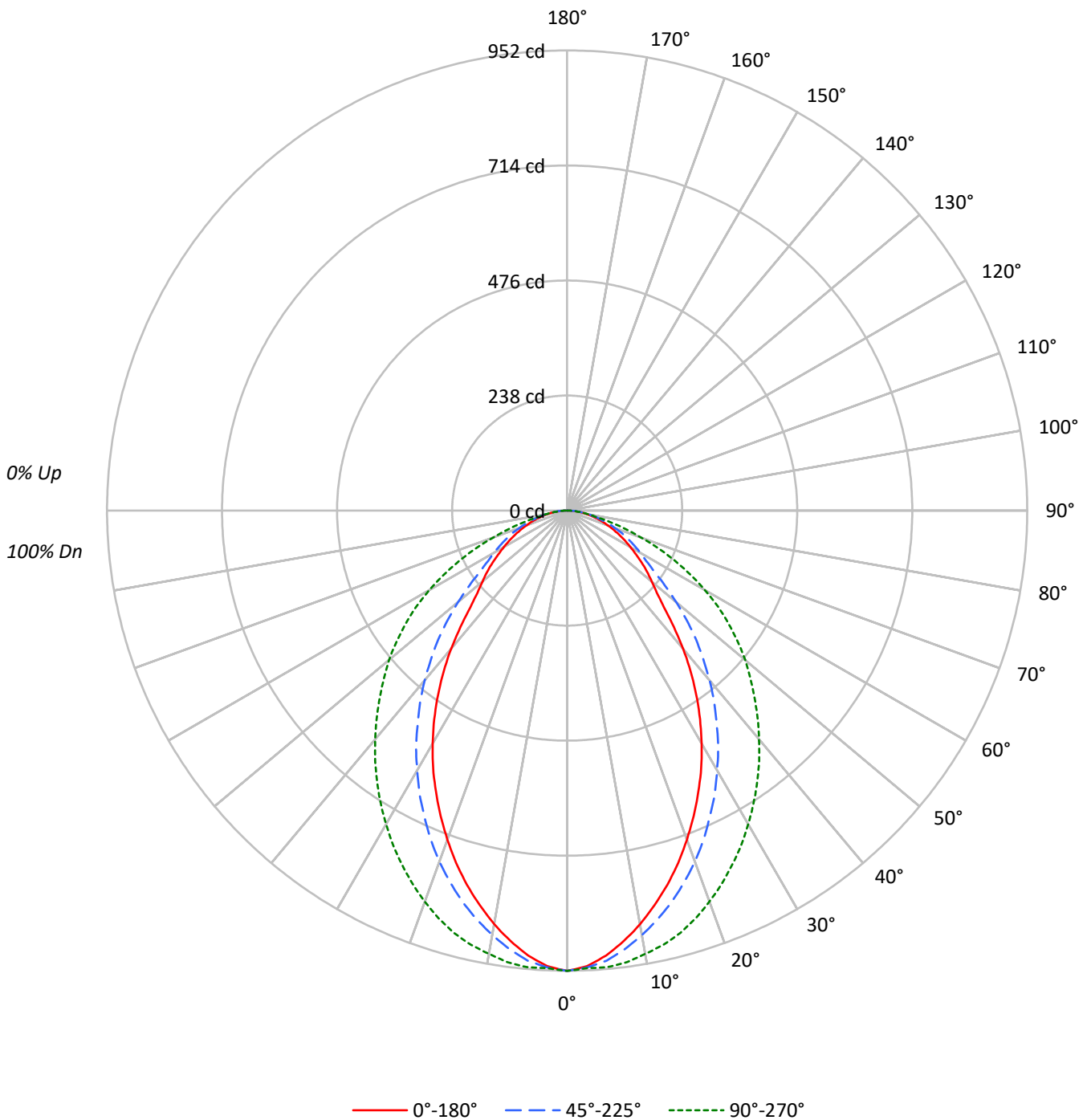
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1794.1 lumens  
Efficiency: N/A  
Efficacy: 69.5 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	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°	6557	6557	6557
5°	6387	6460	6554
10°	6076	6234	6511
15°	5711	5970	6448
20°	5308	5663	6309
25°	4877	5307	6141
30°	4422	4930	5958
35°	3914	4532	5763
40°	3357	4120	5552
45°	2756	3668	5337
50°	2451	3152	5152
55°	2262	2640	4892
60°	2082	2404	4530
65°	1935	2266	4005
70°	1806	2116	3271
75°	1700	1958	2453
80°	1602	1796	1764
85°	1469	1785	1469

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5337 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.2	4.9
10°-20°	237.6	13.2
20°-30°	326.9	18.2
30°-40°	346.8	19.3
40°-50°	303.5	16.9
50°-60°	232.9	13.0
60°-70°	155.1	8.6
70°-80°	79.5	4.4
80°-90°	23.6	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°	652.7	36.4
0°-40°	999.5	55.7
0°-60°	1535.9	85.6
0°-90°	1794.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1794.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	924	936	935	941	948	86
15°	801	820	838	877	905	225
25°	642	664	698	758	808	295
35°	466	488	539	618	686	290
45°	283	306	377	470	548	223
55°	188	192	220	327	408	169
65°	119	120	139	183	246	118
75°	64	68	74	78	92	68
85°	19	21	23	22	19	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	952.3	952.3	952.3	952.3	952.3
2.5°	943.5	953.2	945.9	946.7	947.5
5°	924.1	936.2	934.6	941.0	948.3
7.5°	898.2	911.1	915.2	931.3	942.6
10°	869.1	883.6	891.7	916.0	931.3
12.5°	835.9	852.9	865.8	897.4	920.0
15°	801.2	819.8	837.5	877.2	904.6
17.5°	764.0	782.6	806.0	851.3	884.4
20°	724.4	744.6	772.9	821.4	861.0
22.5°	683.9	705.0	737.3	790.7	835.9
25°	641.9	663.7	698.5	757.5	808.4
27.5°	600.7	620.9	661.3	724.4	780.1
30°	556.2	577.2	620.1	689.6	749.4
32.5°	511.7	532.8	582.1	654.8	717.9
35°	465.7	487.5	539.2	618.5	685.6
37.5°	419.6	442.2	499.6	581.3	652.4
40°	373.5	397.8	458.4	544.1	617.7
42.5°	326.6	352.5	416.3	507.7	583.7
45°	283.0	306.4	376.7	470.5	548.1
47.5°	251.4	265.2	334.7	432.5	514.2
50°	228.8	235.3	294.3	396.1	481.0
52.5°	208.6	212.6	254.7	362.2	444.6
55°	188.4	192.4	219.9	326.6	407.5
57.5°	169.0	171.4	194.0	291.0	370.3
60°	151.2	152.8	174.6	255.5	329.0
62.5°	135.0	135.8	156.0	219.1	287.8
65°	118.8	119.6	139.1	182.7	245.8
67.5°	104.3	104.3	122.9	149.6	205.3
70°	89.7	89.7	105.1	121.3	162.5
72.5°	76.8	78.4	88.9	97.8	126.9
75°	63.9	67.9	73.6	77.6	92.2
77.5°	51.7	56.6	59.0	60.6	61.4
80°	40.4	43.7	45.3	46.1	44.5
82.5°	29.9	32.3	33.1	33.1	30.7
85°	18.6	21.0	22.6	21.8	18.6
87.5°	8.9	12.1	12.9	11.3	8.9
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	13.15	14.65	13.51	14.96	15.28	17.17	18.67	17.54	18.99	19.30
	3H	14.74	16.08	15.11	16.41	16.77	18.56	19.91	18.94	20.23	20.60
	4H	15.38	16.64	15.78	16.99	17.37	18.97	20.23	19.37	20.58	20.96
	6H	15.89	17.05	16.30	17.42	17.81	19.17	20.34	19.59	20.70	21.10
	8H	16.07	17.18	16.50	17.57	17.97	19.23	20.34	19.66	20.73	21.13
	12H	16.19	17.26	16.63	17.64	18.07	19.26	20.32	19.69	20.71	21.14
4H	2H	13.92	15.18	14.32	15.53	15.91	17.30	18.56	17.70	18.91	19.29
	3H	15.70	16.75	16.11	17.15	17.55	18.87	19.92	19.28	20.32	20.72
	4H	16.47	17.41	16.90	17.83	18.27	19.38	20.32	19.82	20.74	21.18
	6H	17.11	17.93	17.57	18.37	18.83	19.71	20.53	20.17	20.97	21.43
	8H	17.34	18.10	17.80	18.55	19.02	19.81	20.57	20.27	21.02	21.49
	12H	17.51	18.19	17.99	18.67	19.14	19.88	20.56	20.36	21.04	21.51
8H	4H	16.85	17.62	17.32	18.06	18.53	19.48	20.25	19.95	20.69	21.16
	6H	17.63	18.26	18.13	18.75	19.23	19.90	20.53	20.40	21.03	21.50
	8H	17.95	18.51	18.46	19.02	19.51	20.06	20.63	20.58	21.14	21.63
	12H	18.21	18.71	18.72	19.20	19.77	20.20	20.70	20.71	21.19	21.76
12H	4H	16.89	17.58	17.37	18.05	18.53	19.48	20.17	19.96	20.64	21.12
	6H	17.70	18.27	18.22	18.78	19.27	19.91	20.48	20.43	20.99	21.48
	8H	18.09	18.59	18.60	19.08	19.65	20.12	20.63	20.63	21.12	21.68