

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: P1061763

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061763  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S850D830-X4F0-XX-UDD-SVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

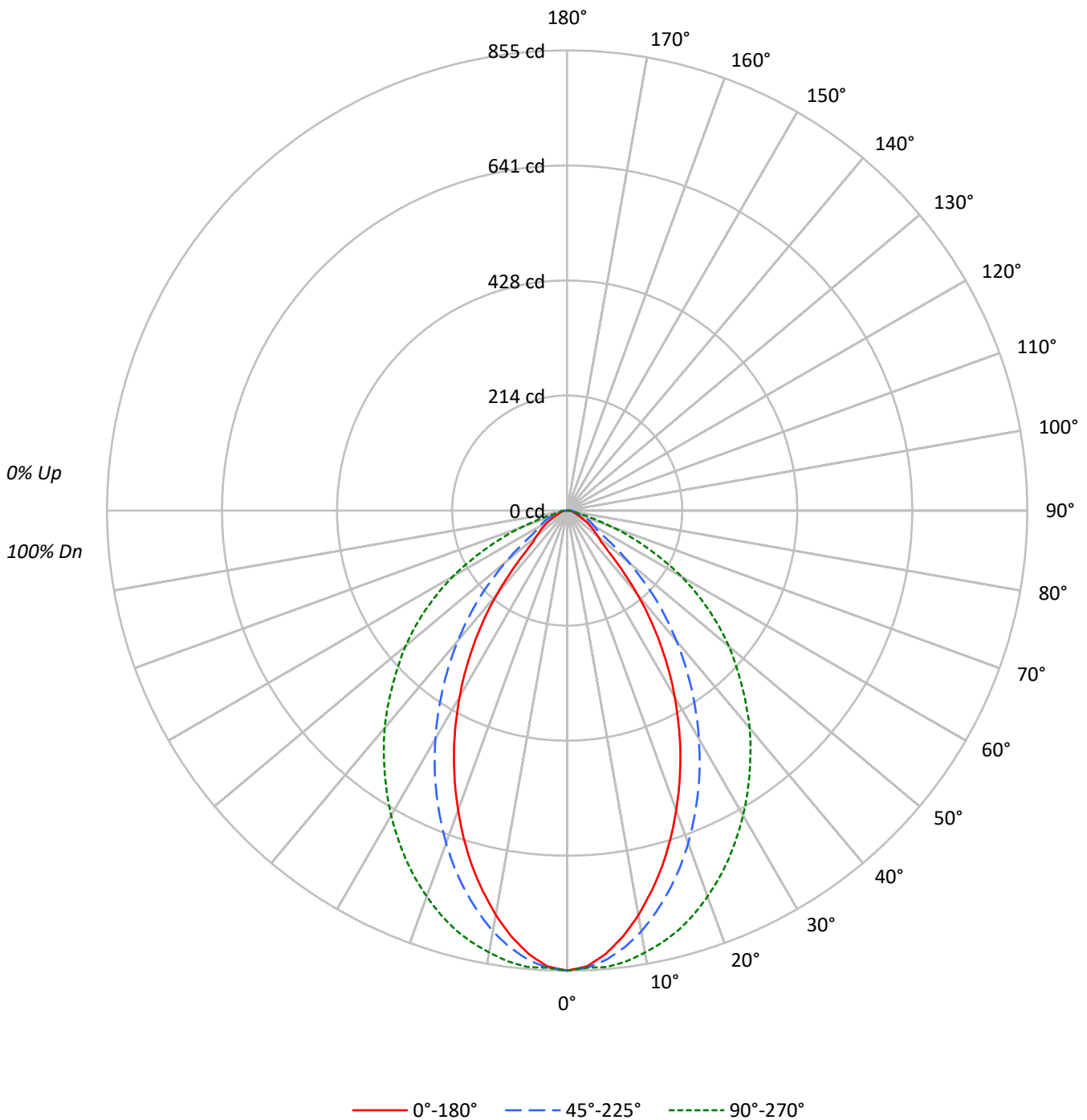
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1238.1 lumens  
Efficiency: N/A  
Efficacy: 48.0 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

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

	0°	45°	90°
0°	5886	5886	5886
5°	5713	5788	5882
10°	5334	5551	5830
15°	4869	5212	5743
20°	4339	4818	5591
25°	3782	4375	5410
30°	3178	3893	5200
35°	2527	3382	4970
40°	1821	2841	4744
45°	1079	2255	4466
50°	798	1606	4203
55°	676	993	3848
60°	551	800	3390
65°	428	740	2678
70°	366	640	1792
75°	338	556	726
80°	361	575	504
85°	434	861	577

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4466 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.8	6.4
10°-20°	206.9	16.7
20°-30°	270.4	21.8
30°-40°	263.4	21.3
40°-50°	197.6	16.0
50°-60°	123.9	10.0
60°-70°	64.5	5.2
70°-80°	23.3	1.9
80°-90°	9.3	0.7
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°	556.1	44.9
0°-40°	819.6	66.2
0°-60°	1141.0	92.2
0°-90°	1238.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1238.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	827	838	838	844	851	77
15°	683	703	731	777	806	191
25°	498	525	576	654	712	227
35°	301	332	402	510	591	187
45°	111	144	232	358	459	93
55°	56	59	83	216	321	50
65°	26	28	45	87	164	27
75°	13	17	21	22	27	14
85°	6	9	11	10	7	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	854.8	854.8	854.8	854.8	854.8
2.5°	847.5	855.7	850.2	850.2	850.2
5°	826.6	837.5	837.5	843.9	851.1
7.5°	797.5	810.2	818.4	833.9	844.8
10°	763.0	778.5	793.9	819.3	833.9
12.5°	724.0	742.1	763.9	799.3	821.1
15°	683.1	703.1	731.2	776.6	805.7
17.5°	638.6	662.2	695.8	750.3	785.7
20°	592.2	615.9	657.6	719.4	763.0
22.5°	545.9	571.4	616.8	686.7	738.5
25°	497.8	525.0	575.9	654.0	712.1
27.5°	448.7	476.9	533.2	620.4	683.1
30°	399.7	428.7	489.6	584.1	654.0
32.5°	350.6	381.5	446.0	546.8	623.1
35°	300.7	332.5	402.4	509.6	591.3
37.5°	252.5	284.3	358.8	471.4	559.5
40°	202.6	237.1	316.1	433.3	527.8
42.5°	153.5	188.9	273.4	395.1	493.2
45°	110.8	143.5	231.6	357.9	458.7
47.5°	85.4	103.6	188.9	319.7	425.1
50°	74.5	79.9	149.9	284.3	392.4
52.5°	64.5	68.1	112.6	251.6	357.0
55°	56.3	59.0	82.7	216.2	320.6
57.5°	47.2	50.9	65.4	181.7	283.4
60°	40.0	41.8	58.1	149.9	246.2
62.5°	32.7	34.5	51.8	118.1	204.4
65°	26.3	28.2	45.4	87.2	164.4
67.5°	21.8	22.7	38.2	61.8	126.3
70°	18.2	19.1	31.8	42.7	89.0
72.5°	15.4	18.2	25.4	30.9	56.3
75°	12.7	17.3	20.9	21.8	27.3
77.5°	10.9	16.4	17.3	17.3	15.4
80°	9.1	13.6	14.5	13.6	12.7
82.5°	7.3	10.9	11.8	11.8	10.0
85°	5.5	9.1	10.9	10.0	7.3
87.5°	3.6	8.2	9.1	8.2	5.5
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	6.08	7.43	6.44	7.74	8.06	15.69	17.04	16.05	17.35	17.67
	3H	6.94	8.14	7.32	8.47	8.83	16.53	17.73	16.91	18.06	18.42
	4H	7.36	8.48	7.76	8.83	9.21	16.61	17.72	17.01	18.08	18.46
	6H	7.79	8.82	8.20	9.19	9.58	16.59	17.62	17.00	17.99	18.38
	8H	7.97	8.94	8.40	9.33	9.74	16.58	17.55	17.00	17.94	18.35
	12H	8.13	9.06	8.56	9.45	9.88	16.56	17.50	17.00	17.88	18.31
4H	2H	7.04	8.16	7.44	8.51	8.89	15.55	16.67	15.95	17.02	17.40
	3H	8.09	9.01	8.51	9.41	9.82	16.46	17.38	16.88	17.78	18.19
	4H	8.66	9.48	9.09	9.89	10.34	16.56	17.38	17.00	17.80	18.25
	6H	9.26	9.96	9.72	10.41	10.88	16.59	17.30	17.05	17.75	18.21
	8H	9.50	10.16	9.96	10.60	11.07	16.59	17.25	17.06	17.70	18.17
	12H	9.72	10.31	10.21	10.79	11.27	16.61	17.19	17.09	17.67	18.15
8H	4H	9.13	9.79	9.60	10.24	10.71	16.49	17.15	16.96	17.60	18.07
	6H	9.94	10.48	10.44	10.98	11.46	16.54	17.09	17.05	17.58	18.06
	8H	10.32	10.81	10.84	11.32	11.81	16.58	17.06	17.10	17.58	18.07
	12H	10.72	11.15	11.23	11.64	12.21	16.64	17.07	17.16	17.57	18.14
12H	4H	9.18	9.76	9.67	10.25	10.72	16.46	17.04	16.94	17.52	18.00
	6H	10.06	10.55	10.58	11.06	11.56	16.51	17.00	17.03	17.51	18.00
	8H	10.55	10.98	11.07	11.48	12.05	16.58	17.01	17.10	17.51	18.08