

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: P1061778

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S850D840-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

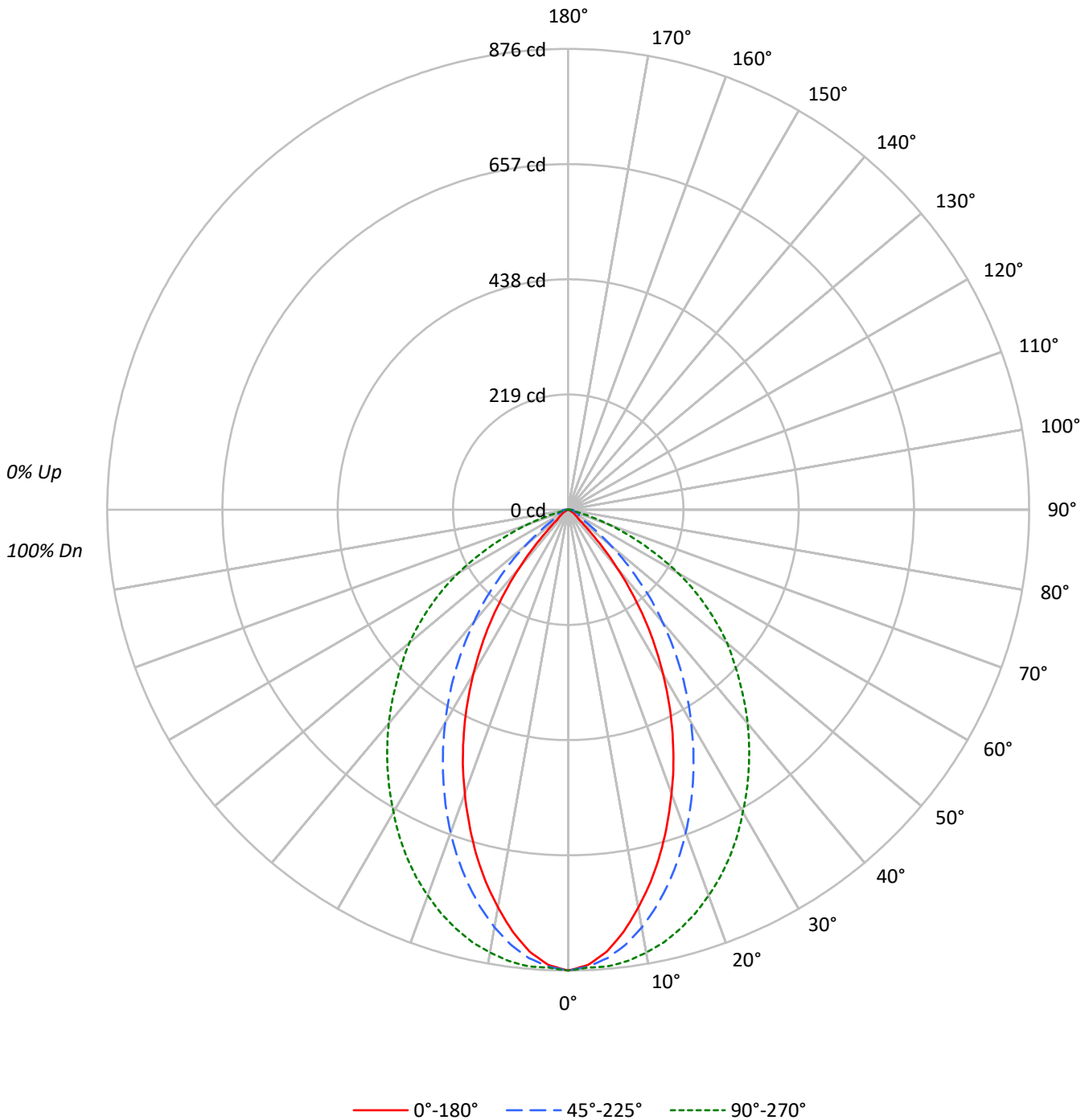
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1133.4 lumens  
Efficiency: N/A  
Efficacy: 43.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38

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

	0°	45°	90°
0°	6031	6031	6031
5°	5826	5914	6021
10°	5369	5635	5975
15°	4822	5246	5876
20°	4208	4785	5720
25°	3565	4266	5524
30°	2863	3714	5277
35°	2119	3134	5031
40°	1312	2502	4768
45°	512	1830	4483
50°	240	1147	4222
55°	175	491	3833
60°	121	348	3324
65°	80	365	2586
70°	79	332	1627
75°	104	338	519
80°	155	385	349
85°	229	766	537

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4483 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.3	7.1
10°-20°	208.2	18.4
20°-30°	265.1	23.4
30°-40°	246.8	21.8
40°-50°	169.9	15.0
50°-60°	96.2	8.5
60°-70°	45.4	4.0
70°-80°	14.2	1.3
80°-90°	7.4	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°	553.6	48.8
0°-40°	800.4	70.6
0°-60°	1066.4	94.1
0°-90°	1133.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1133.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	876	876	876	876	876	
5°	843	855	856	863	871	78
15°	676	699	736	791	824	188
25°	469	499	562	656	727	214
35°	252	287	373	500	599	156
45°	53	84	188	340	460	49
55°	15	16	41	196	319	13
65°	5	6	22	70	159	5
75°	4	9	13	14	20	4
85°	3	8	10	9	7	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	876.0	876.0	876.0	876.0	876.0
2.5°	866.3	875.1	869.2	870.2	871.2
5°	842.9	854.6	855.6	863.4	871.2
7.5°	808.9	823.5	834.2	852.7	865.3
10°	768.0	785.5	806.0	836.1	854.6
12.5°	724.2	744.6	772.9	815.7	842.0
15°	676.5	698.9	735.9	791.4	824.4
17.5°	625.9	651.2	696.0	762.2	804.0
20°	574.3	601.5	653.1	729.1	780.6
22.5°	522.7	550.9	608.4	693.0	755.3
25°	469.2	499.3	561.6	656.1	727.1
27.5°	414.7	445.8	514.9	618.1	696.9
30°	360.1	393.2	467.2	579.2	663.8
32.5°	306.6	339.7	420.5	540.2	631.7
35°	252.1	287.1	372.8	500.3	598.6
37.5°	197.6	235.6	326.1	459.4	564.6
40°	146.0	182.0	278.4	419.5	530.5
42.5°	97.3	132.4	235.6	379.6	495.4
45°	52.6	83.7	187.9	339.7	460.4
47.5°	28.2	44.8	147.0	300.8	426.3
50°	22.4	25.3	107.1	264.8	394.2
52.5°	18.5	20.4	70.1	230.7	357.2
55°	14.6	16.5	40.9	195.6	319.3
57.5°	11.7	13.6	26.3	162.6	282.3
60°	8.8	10.7	25.3	130.4	241.4
62.5°	6.8	7.8	23.4	100.3	198.6
65°	4.9	5.8	22.4	70.1	158.7
67.5°	3.9	4.9	20.4	44.8	118.8
70°	3.9	3.9	16.5	29.2	80.8
72.5°	3.9	6.8	14.6	19.5	48.7
75°	3.9	8.8	12.7	13.6	19.5
77.5°	3.9	9.7	10.7	10.7	10.7
80°	3.9	8.8	9.7	9.7	8.8
82.5°	3.9	7.8	8.8	9.7	7.8
85°	2.9	7.8	9.7	8.8	6.8
87.5°	2.9	7.8	8.8	7.8	4.9
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	0.00	0.00	0.00	0.00	0.00	15.49	16.78	15.85	17.09	17.41
	3H	0.00	0.00	0.00	0.00	0.00	16.21	17.35	16.59	17.68	18.05
	4H	0.00	0.00	0.00	0.00	0.36	16.23	17.30	16.64	17.65	18.03
	6H	0.00	0.80	0.24	1.17	1.57	16.18	17.16	16.60	17.53	17.92
	8H	0.47	1.39	0.90	1.78	2.19	16.16	17.08	16.59	17.48	17.88
	12H	1.06	1.94	1.49	2.32	2.75	16.14	17.03	16.58	17.41	17.84
4H	2H	0.00	1.06	0.40	1.41	1.79	15.28	16.34	15.68	16.69	17.08
	3H	0.81	1.68	1.22	2.08	2.48	16.04	16.91	16.45	17.31	17.71
	4H	1.82	2.60	2.26	3.02	3.46	16.07	16.84	16.50	17.26	17.70
	6H	3.10	3.77	3.57	4.22	4.68	16.04	16.71	16.51	17.16	17.63
	8H	3.69	4.31	4.16	4.76	5.23	16.03	16.65	16.50	17.10	17.57
	12H	4.25	4.80	4.73	5.28	5.75	16.04	16.59	16.52	17.07	17.54
8H	4H	3.24	3.86	3.71	4.31	4.78	15.95	16.57	16.42	17.02	17.49
	6H	4.80	5.31	5.30	5.81	6.29	15.94	16.45	16.44	16.94	17.43
	8H	5.60	6.05	6.12	6.57	7.06	15.95	16.41	16.47	16.92	17.42
	12H	6.43	6.84	6.95	7.33	7.91	16.01	16.41	16.53	16.91	17.48
12H	4H	3.46	4.01	3.94	4.49	4.96	15.91	16.46	16.39	16.94	17.42
	6H	5.17	5.63	5.69	6.14	6.64	15.89	16.35	16.42	16.87	17.36
	8H	6.16	6.57	6.68	7.06	7.63	15.94	16.34	16.46	16.84	17.41