

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: P1057818

Luminaire Tested: S122RDRP-S1005D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057818  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S1005D850-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

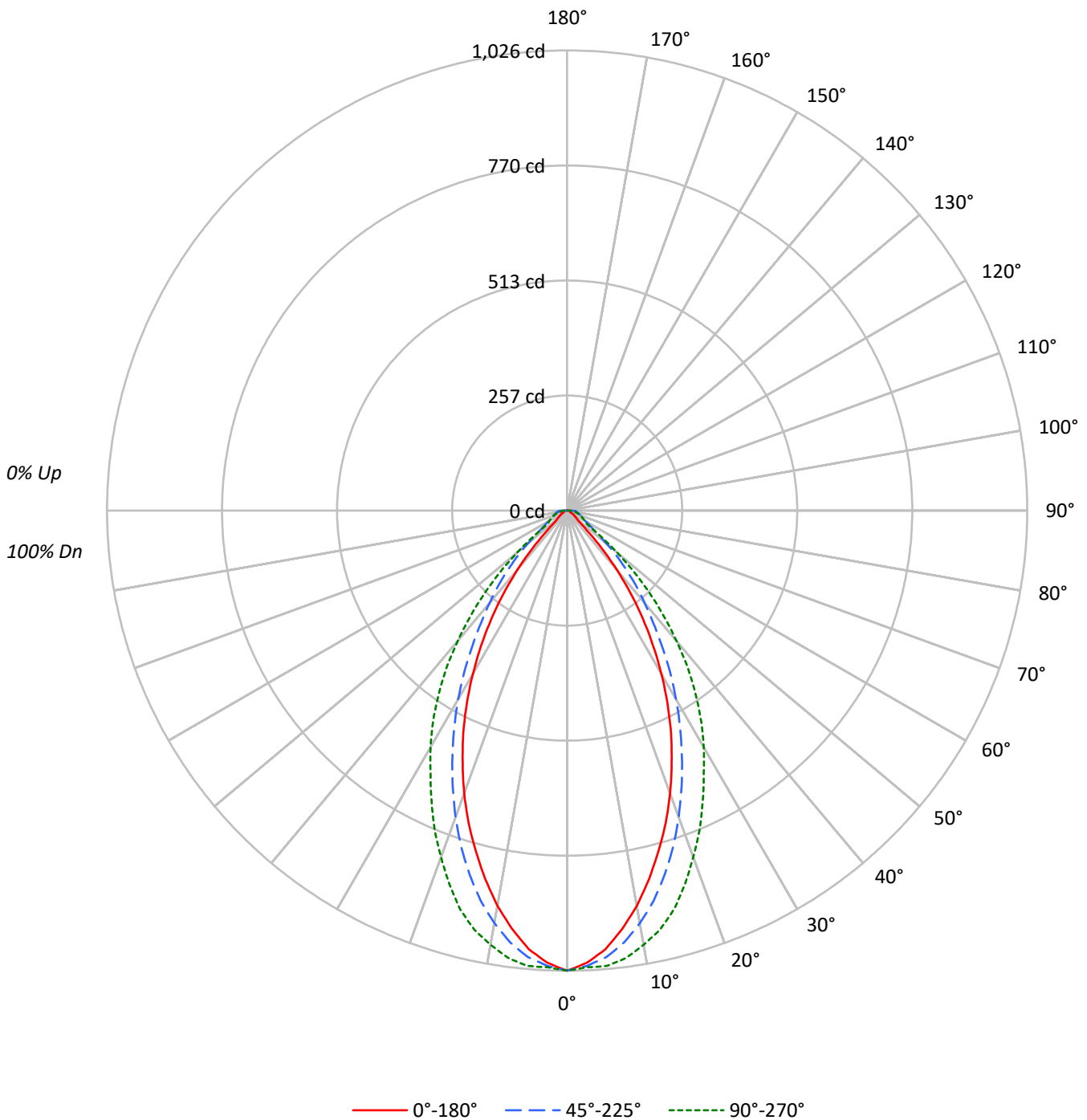
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1116.4 lumens  
Efficiency: N/A  
Efficacy: 26.7 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	18927	18927	18927
5°	18178	18512	18877
10°	16758	17497	18419
15°	15017	16053	17589
20°	13180	14276	16145
25°	11159	12330	14568
30°	8951	10351	12974
35°	6618	8281	11238
40°	4150	6482	9132
45°	1628	4883	6767
50°	801	3298	4145
55°	634	2165	1847
60°	483	1757	1698
65°	358	1646	1646
70°	442	1683	1683
75°	471	1875	1754
80°	701	2444	1923
85°	1397	4171	2774

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 7657 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.7	8.4
10°-20°	236.8	21.2
20°-30°	283.3	25.4
30°-40°	238.5	21.4
40°-50°	135.8	12.2
50°-60°	53.5	4.8
60°-70°	33.7	3.0
70°-80°	25.1	2.2
80°-90°	16.0	1.4
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°	613.9	55.0
0°-40°	852.3	76.3
0°-60°	1041.7	93.3
0°-90°	1116.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1116.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	981	1003	999	1011	1019	91
15°	786	814	840	890	921	219
25°	548	573	606	668	716	250
35°	294	320	368	446	499	182
45°	62	110	187	235	259	59
55°	20	43	67	69	57	18
65°	8	38	38	36	38	9
75°	7	26	26	25	25	7
85°	7	18	20	18	13	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1025.7	1025.7	1025.7	1025.7	1025.7
2.5°	1009.3	1027.3	1015.8	1017.5	1019.1
5°	981.4	1002.7	999.4	1010.9	1019.1
7.5°	940.4	963.3	971.5	991.2	1006.0
10°	894.4	920.7	933.8	965.0	983.0
12.5°	841.9	871.4	891.1	930.5	956.8
15°	786.1	814.0	840.3	889.5	920.7
17.5°	730.3	758.2	786.1	840.3	873.1
20°	671.2	697.5	727.0	784.5	822.2
22.5°	608.9	636.8	666.3	725.4	771.3
25°	548.1	572.7	605.6	667.9	715.5
27.5°	484.1	508.7	544.8	608.9	659.7
30°	420.1	444.7	485.8	551.4	608.9
32.5°	356.1	382.4	426.7	498.9	556.3
35°	293.8	320.0	367.6	446.4	498.9
37.5°	233.0	262.6	315.1	392.2	441.5
40°	172.3	206.8	269.1	338.1	379.1
42.5°	114.9	157.5	226.5	283.9	318.4
45°	62.4	110.0	187.1	234.7	259.3
47.5°	34.5	70.6	149.3	187.1	201.9
50°	27.9	49.2	114.9	142.8	144.4
52.5°	23.0	44.3	85.3	101.7	93.5
55°	19.7	42.7	67.3	68.9	57.4
57.5°	16.4	41.0	55.8	49.2	49.2
60°	13.1	41.0	47.6	44.3	46.0
62.5°	9.8	41.0	42.7	39.4	41.0
65°	8.2	37.7	37.7	36.1	37.7
67.5°	8.2	34.5	34.5	32.8	34.5
70°	8.2	32.8	31.2	31.2	31.2
72.5°	6.6	29.5	29.5	27.9	27.9
75°	6.6	26.3	26.3	24.6	24.6
77.5°	6.6	24.6	24.6	23.0	21.3
80°	6.6	21.3	23.0	21.3	18.1
82.5°	6.6	19.7	21.3	19.7	14.8
85°	6.6	18.1	19.7	18.1	13.1
87.5°	4.9	18.1	18.1	14.8	9.8
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	7.90	9.12	8.27	9.44	9.75	9.93	11.15	10.29	11.46	11.78
	3H	9.45	10.53	9.83	10.87	11.23	11.90	12.99	12.28	13.32	13.69
	4H	10.01	11.02	10.41	11.37	11.76	12.82	13.83	13.22	14.18	14.57
	6H	10.57	11.50	10.98	11.87	12.26	13.70	14.63	14.12	15.00	15.40
	8H	10.86	11.74	11.29	12.13	12.54	14.11	14.99	14.54	15.38	15.79
	12H	11.23	12.07	11.66	12.45	12.88	14.55	15.39	14.98	15.77	16.21
4H	2H	9.09	10.10	9.49	10.45	10.84	10.55	11.56	10.95	11.91	12.30
	3H	11.29	12.12	11.70	12.53	12.93	12.80	13.63	13.21	14.03	14.44
	4H	12.35	13.10	12.78	13.52	13.96	13.87	14.61	14.30	15.04	15.48
	6H	13.24	13.89	13.71	14.34	14.81	14.98	15.63	15.44	16.07	16.54
	8H	13.63	14.24	14.10	14.68	15.16	15.50	16.11	15.97	16.56	17.03
	12H	14.05	14.59	14.54	15.07	15.55	16.08	16.61	16.57	17.10	17.57
8H	4H	13.15	13.76	13.62	14.20	14.68	14.36	14.97	14.83	15.41	15.88
	6H	14.53	15.03	15.03	15.52	16.01	15.76	16.25	16.26	16.75	17.23
	8H	15.25	15.70	15.77	16.21	16.71	16.50	16.94	17.02	17.46	17.95
	12H	16.01	16.40	16.52	16.89	17.47	17.33	17.72	17.85	18.22	18.79
12H	4H	13.31	13.85	13.80	14.33	14.81	14.46	14.99	14.95	15.48	15.95
	6H	14.86	15.31	15.39	15.82	16.32	15.97	16.42	16.50	16.94	17.43
	8H	15.78	16.17	16.29	16.67	17.24	16.86	17.25	17.38	17.75	18.32