

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: P1057983

Luminaire Tested: S122RDRP-S485D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057983  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

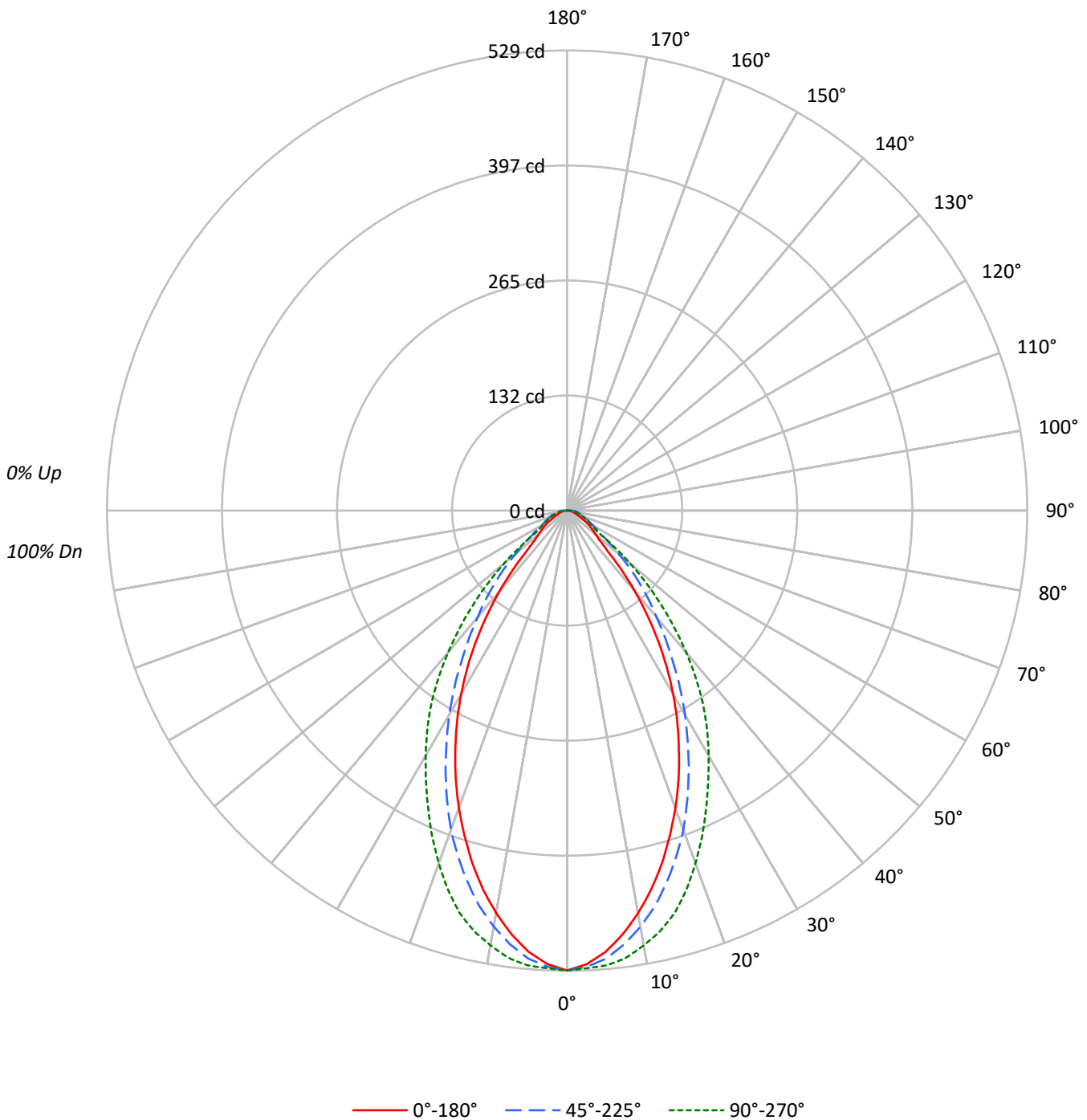
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 641.3 lumens  
Efficiency: N/A  
Efficacy: 32.7 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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

	0°	45°	90°
0°	9756	9756	9756
5°	9430	9575	9721
10°	8803	9097	9509
15°	8029	8449	9141
20°	7142	7668	8469
25°	6189	6735	7694
30°	5188	5774	6931
35°	4089	4778	6141
40°	2915	3861	5128
45°	1722	3056	3977
50°	1240	2210	2707
55°	1036	1592	1364
60°	841	1277	1159
65°	685	1131	1065
70°	593	1101	1020
75°	563	1119	1005
80°	584	1339	1084
85°	826	2160	1334

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3977 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.5	7.6
10°-20°	124.6	19.4
20°-30°	153.7	24.0
30°-40°	136.7	21.3
40°-50°	87.3	13.6
50°-60°	41.9	6.5
60°-70°	24.6	3.8
70°-80°	15.7	2.4
80°-90°	8.4	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°	326.8	51.0
0°-40°	463.5	72.3
0°-60°	592.7	92.4
0°-90°	641.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	509	518	517	520	525	47
15°	420	430	442	463	478	117
25°	304	316	331	354	378	139
35°	182	196	212	244	273	113
45°	66	86	117	136	152	55
55°	32	42	50	48	42	29
65°	16	28	26	24	24	16
75°	8	17	16	15	14	9
85°	4	9	10	9	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	528.7	528.7	528.7	528.7	528.7
2.5°	521.7	530.3	524.8	524.8	526.4
5°	509.1	518.5	516.9	520.1	524.8
7.5°	491.0	501.2	502.8	511.4	518.5
10°	469.8	480.8	485.5	498.1	507.5
12.5°	446.2	457.2	465.9	481.6	495.0
15°	420.3	430.5	442.3	462.7	478.5
17.5°	392.0	405.4	417.2	438.4	456.5
20°	363.7	376.3	390.5	410.9	431.3
22.5°	334.7	346.5	360.6	381.8	405.4
25°	304.0	315.8	330.8	354.3	377.9
27.5°	274.2	286.0	300.1	326.0	351.2
30°	243.5	255.3	271.0	297.8	325.3
32.5°	212.9	225.5	241.2	270.3	299.3
35°	181.5	195.6	212.1	244.3	272.6
37.5°	150.8	165.0	185.4	216.8	243.5
40°	121.0	137.5	160.3	188.6	212.9
42.5°	91.9	110.0	138.3	161.1	182.3
45°	66.0	85.6	117.1	135.9	152.4
47.5°	50.3	64.4	96.6	111.6	123.3
50°	43.2	51.9	77.0	88.0	94.3
52.5°	37.7	45.6	61.3	66.8	66.8
55°	32.2	41.6	49.5	47.9	42.4
57.5°	27.5	37.7	40.9	34.6	36.1
60°	22.8	34.6	34.6	30.6	31.4
62.5°	18.9	32.2	29.9	26.7	27.5
65°	15.7	28.3	25.9	23.6	24.4
67.5°	12.6	25.1	22.8	21.2	21.2
70°	11.0	22.8	20.4	18.9	18.9
72.5°	9.4	19.6	18.1	16.5	16.5
75°	7.9	17.3	15.7	14.9	14.1
77.5°	7.1	14.9	14.1	12.6	11.8
80°	5.5	12.6	12.6	11.8	10.2
82.5°	4.7	11.0	11.0	10.2	8.6
85°	3.9	9.4	10.2	8.6	6.3
87.5°	3.1	8.6	8.6	7.1	4.7
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	9.59	10.86	9.95	11.17	11.49	9.38	10.66	9.74	10.97	11.28
	3H	10.82	11.95	11.20	12.28	12.65	10.97	12.11	11.35	12.44	12.80
	4H	11.27	12.33	11.67	12.68	13.06	11.69	12.74	12.09	13.09	13.48
	6H	11.65	12.63	12.07	13.00	13.39	12.34	13.31	12.75	13.68	14.08
	8H	11.81	12.73	12.24	13.12	13.52	12.66	13.59	13.10	13.98	14.38
	12H	11.96	12.84	12.39	13.23	13.66	12.96	13.84	13.40	14.23	14.66
4H	2H	10.13	11.19	10.54	11.54	11.93	9.97	11.03	10.37	11.38	11.76
	3H	11.83	12.70	12.24	13.10	13.51	11.81	12.68	12.22	13.08	13.49
	4H	12.63	13.41	13.06	13.83	14.27	12.68	13.46	13.11	13.88	14.32
	6H	13.27	13.95	13.73	14.39	14.86	13.53	14.20	13.99	14.65	15.12
	8H	13.52	14.15	13.99	14.60	15.07	13.95	14.58	14.42	15.03	15.50
	12H	13.76	14.32	14.25	14.81	15.28	14.35	14.91	14.83	15.39	15.87
8H	4H	13.04	13.68	13.51	14.12	14.59	13.10	13.73	13.57	14.18	14.65
	6H	14.02	14.54	14.52	15.04	15.52	14.18	14.70	14.69	15.20	15.68
	8H	14.51	14.98	15.04	15.50	15.99	14.77	15.24	15.30	15.76	16.25
	12H	15.01	15.42	15.53	15.92	16.49	15.37	15.79	15.89	16.28	16.85
12H	4H	13.11	13.67	13.60	14.15	14.63	13.17	13.73	13.66	14.22	14.69
	6H	14.19	14.66	14.71	15.17	15.67	14.35	14.82	14.87	15.33	15.82
	8H	14.83	15.24	15.34	15.73	16.31	15.06	15.47	15.57	15.97	16.54