

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: P1057980

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057980  
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-S485D850-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: -

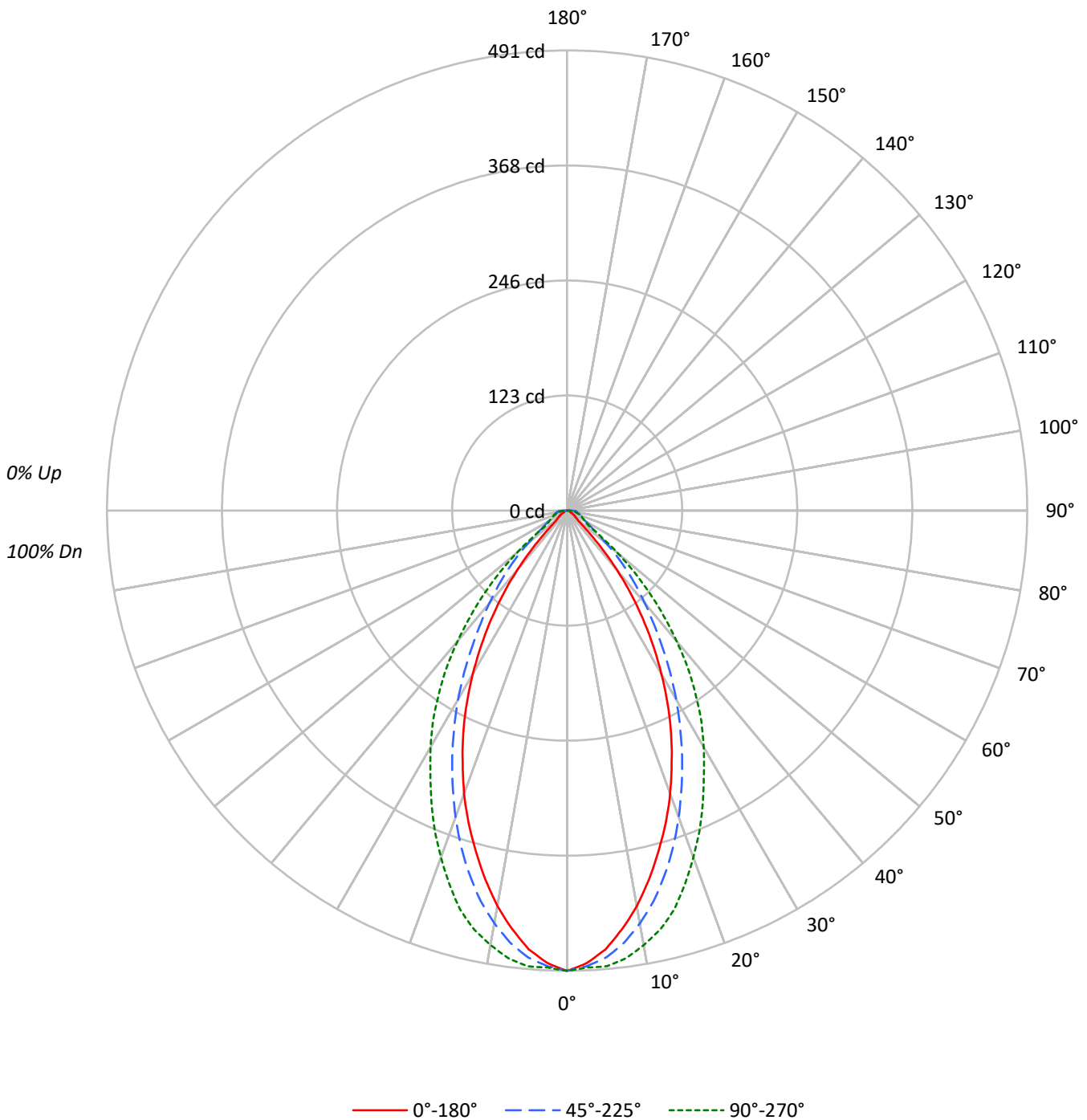
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 534.5 lumens  
Efficiency: N/A  
Efficacy: 27.3 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): 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	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°	9062	9062	9062
5°	8704	8865	9039
10°	8025	8377	8820
15°	7191	7685	8421
20°	6311	6836	7731
25°	5345	5904	6975
30°	4287	4956	6211
35°	3169	3965	5382
40°	1987	3105	4372
45°	780	2338	3241
50°	385	1579	1987
55°	302	1036	885
60°	233	841	812
65°	170	790	790
70°	210	804	804
75°	221	898	841
80°	329	1169	914
85°	656	1990	1334

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 3638 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.9	8.4
10°-20°	113.4	21.2
20°-30°	135.7	25.4
30°-40°	114.2	21.4
40°-50°	65.0	12.2
50°-60°	25.6	4.8
60°-70°	16.1	3.0
70°-80°	12.0	2.2
80°-90°	7.6	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°	293.9	55.0
0°-40°	408.1	76.4
0°-60°	498.8	93.3
0°-90°	534.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	470	480	479	484	488	44
15°	376	390	402	426	441	105
25°	262	274	290	320	343	120
35°	141	153	176	214	239	87
45°	30	53	90	112	124	28
55°	9	20	32	33	28	8
65°	4	18	18	17	18	4
75°	3	13	13	12	12	3
85°	3	9	9	9	6	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	491.1	491.1	491.1	491.1	491.1
2.5°	483.3	491.9	486.4	487.2	488.0
5°	469.9	480.1	478.6	484.1	488.0
7.5°	450.3	461.3	465.2	474.6	481.7
10°	428.3	440.8	447.1	462.1	470.7
12.5°	403.1	417.3	426.7	445.6	458.1
15°	376.4	389.8	402.3	425.9	440.8
17.5°	349.7	363.0	376.4	402.3	418.0
20°	321.4	334.0	348.1	375.6	393.7
22.5°	291.5	304.9	319.0	347.3	369.3
25°	262.5	274.2	290.0	319.8	342.6
27.5°	231.8	243.6	260.9	291.5	315.9
30°	201.2	213.0	232.6	264.0	291.5
32.5°	170.5	183.1	204.3	238.9	266.4
35°	140.7	153.2	176.0	213.7	238.9
37.5°	111.6	125.7	150.9	187.8	211.4
40°	82.5	99.0	128.9	161.9	181.5
42.5°	55.0	75.4	108.4	135.9	152.4
45°	29.9	52.6	89.6	112.4	124.2
47.5°	16.5	33.8	71.5	89.6	96.7
50°	13.4	23.6	55.0	68.4	69.2
52.5°	11.0	21.2	40.9	48.7	44.8
55°	9.4	20.4	32.2	33.0	27.5
57.5°	7.9	19.6	26.7	23.6	23.6
60°	6.3	19.6	22.8	21.2	22.0
62.5°	4.7	19.6	20.4	18.9	19.6
65°	3.9	18.1	18.1	17.3	18.1
67.5°	3.9	16.5	16.5	15.7	16.5
70°	3.9	15.7	14.9	14.9	14.9
72.5°	3.1	14.1	14.1	13.4	13.4
75°	3.1	12.6	12.6	11.8	11.8
77.5°	3.1	11.8	11.8	11.0	10.2
80°	3.1	10.2	11.0	10.2	8.6
82.5°	3.1	9.4	10.2	9.4	7.1
85°	3.1	8.6	9.4	8.6	6.3
87.5°	2.4	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	5.34	6.56	5.70	6.87	7.19	7.38	8.60	7.75	8.91	9.23
	3H	6.88	7.97	7.26	8.30	8.66	9.35	10.43	9.73	10.76	11.13
	4H	7.43	8.45	7.84	8.80	9.18	10.27	11.28	10.67	11.63	12.01
	6H	7.99	8.92	8.40	9.29	9.68	11.14	12.07	11.56	12.44	12.84
	8H	8.28	9.16	8.71	9.55	9.95	11.55	12.43	11.98	12.82	13.23
	12H	8.63	9.47	9.06	9.86	10.29	11.99	12.83	12.42	13.22	13.65
4H	2H	6.53	7.54	6.93	7.89	8.28	8.00	9.01	8.40	9.36	9.75
	3H	8.73	9.56	9.14	9.97	10.37	10.24	11.07	10.65	11.48	11.88
	4H	9.78	10.53	10.22	10.95	11.40	11.31	12.06	11.75	12.48	12.93
	6H	10.68	11.32	11.14	11.77	12.24	12.42	13.07	12.88	13.51	13.98
	8H	11.06	11.66	11.53	12.11	12.58	12.94	13.55	13.41	14.00	14.47
	12H	11.47	12.01	11.96	12.49	12.97	13.52	14.05	14.01	14.54	15.01
8H	4H	10.59	11.19	11.06	11.64	12.11	11.81	12.41	12.28	12.86	13.33
	6H	11.97	12.46	12.47	12.96	13.44	13.20	13.69	13.70	14.19	14.67
	8H	12.68	13.13	13.20	13.64	14.14	13.94	14.38	14.46	14.90	15.39
	12H	13.42	13.82	13.94	14.31	14.89	14.77	15.16	15.28	15.66	16.23
12H	4H	10.75	11.28	11.24	11.77	12.24	11.91	12.44	12.39	12.92	13.40
	6H	12.30	12.74	12.82	13.26	13.75	13.41	13.86	13.94	14.38	14.87
	8H	13.21	13.60	13.72	14.10	14.67	14.30	14.69	14.81	15.19	15.76