

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: P1057998

Luminaire Tested: S122RDRP-S485D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057998  
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-S485D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

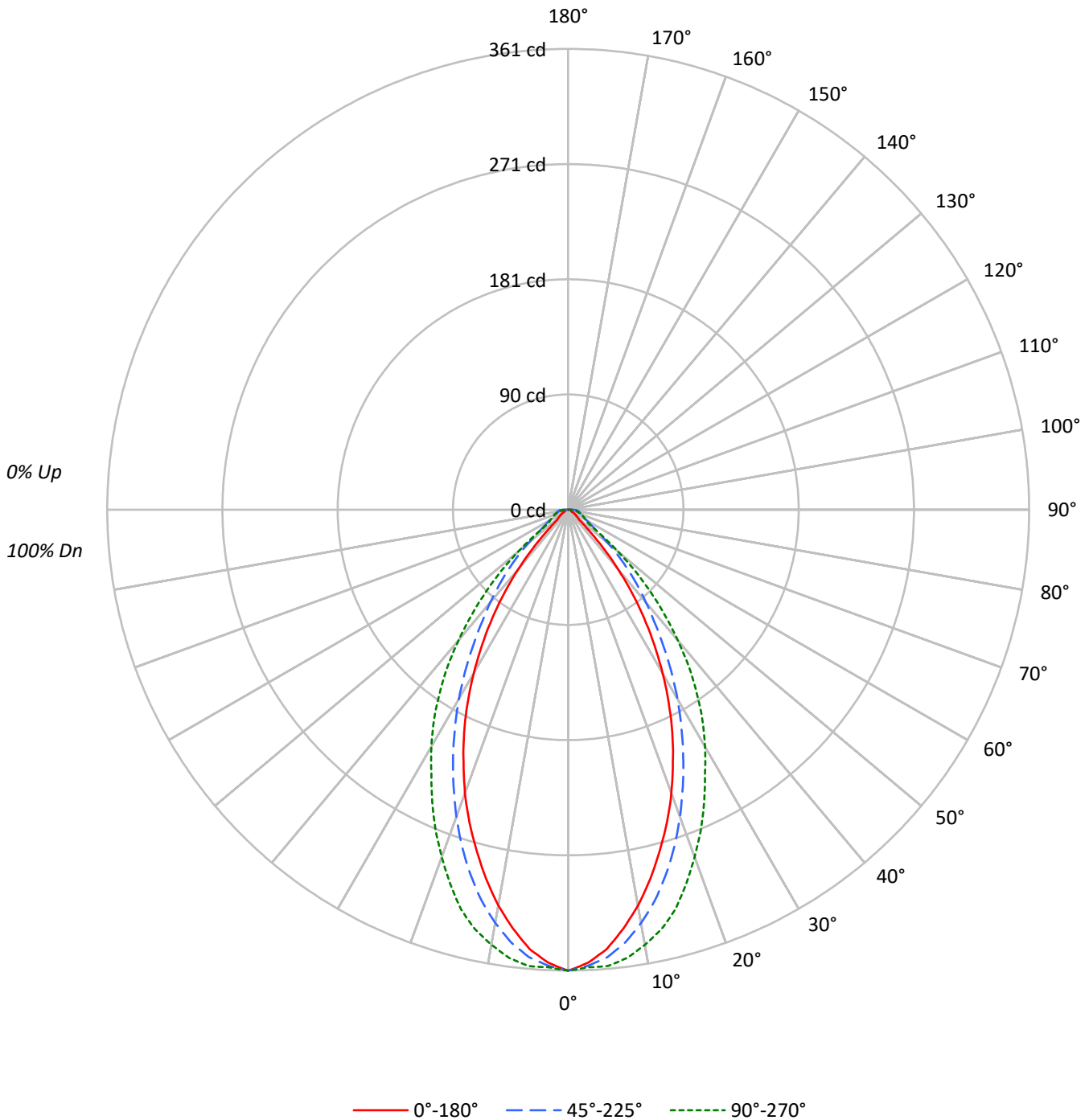
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 393.0 lumens  
Efficiency: N/A  
Efficacy: 20.1 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°	6663	6663	6663
5°	6400	6516	6646
10°	5898	6159	6483
15°	5286	5651	6191
20°	4640	5025	5683
25°	3929	4341	5129
30°	3151	3644	4566
35°	2329	2915	3956
40°	1462	2281	3213
45°	574	1720	2383
50°	281	1160	1458
55°	222	762	650
60°	170	620	598
65°	127	581	581
70°	156	593	593
75°	164	656	620
80°	244	861	680
85°	487	1461	974

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 2707 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.0	8.4
10°-20°	83.4	21.2
20°-30°	99.7	25.4
30°-40°	83.9	21.4
40°-50°	47.8	12.2
50°-60°	18.8	4.8
60°-70°	11.9	3.0
70°-80°	8.8	2.2
80°-90°	5.6	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°	216.1	55.0
0°-40°	300.0	76.3
0°-60°	366.7	93.3
0°-90°	393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	393.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	361	361	361	361	361	
5°	346	353	352	356	359	32
15°	277	286	296	313	324	77
25°	193	202	213	235	252	88
35°	103	113	129	157	176	64
45°	22	39	66	83	91	21
55°	7	15	24	24	20	6
65°	3	13	13	13	13	3
75°	2	9	9	9	9	3
85°	2	6	7	6	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	361.1	361.1	361.1	361.1	361.1
2.5°	355.3	361.6	357.6	358.2	358.8
5°	345.5	353.0	351.8	355.9	358.8
7.5°	331.0	339.1	342.0	348.9	354.1
10°	314.8	324.1	328.7	339.7	346.0
12.5°	296.4	306.8	313.7	327.6	336.8
15°	276.7	286.5	295.8	313.1	324.1
17.5°	257.1	266.9	276.7	295.8	307.3
20°	236.3	245.5	255.9	276.1	289.4
22.5°	214.3	224.1	234.5	255.3	271.5
25°	193.0	201.6	213.2	235.1	251.9
27.5°	170.4	179.1	191.8	214.3	232.2
30°	147.9	156.6	171.0	194.1	214.3
32.5°	125.4	134.6	150.2	175.6	195.8
35°	103.4	112.7	129.4	157.1	175.6
37.5°	82.0	92.4	110.9	138.1	155.4
40°	60.7	72.8	94.7	119.0	133.4
42.5°	40.4	55.5	79.7	99.9	112.1
45°	22.0	38.7	65.9	82.6	91.3
47.5°	12.1	24.8	52.6	65.9	71.1
50°	9.8	17.3	40.4	50.3	50.8
52.5°	8.1	15.6	30.0	35.8	32.9
55°	6.9	15.0	23.7	24.3	20.2
57.5°	5.8	14.4	19.6	17.3	17.3
60°	4.6	14.4	16.8	15.6	16.2
62.5°	3.5	14.4	15.0	13.9	14.4
65°	2.9	13.3	13.3	12.7	13.3
67.5°	2.9	12.1	12.1	11.6	12.1
70°	2.9	11.6	11.0	11.0	11.0
72.5°	2.3	10.4	10.4	9.8	9.8
75°	2.3	9.2	9.2	8.7	8.7
77.5°	2.3	8.7	8.7	8.1	7.5
80°	2.3	7.5	8.1	7.5	6.4
82.5°	2.3	6.9	7.5	6.9	5.2
85°	2.3	6.4	6.9	6.4	4.6
87.5°	1.7	6.4	6.4	5.2	3.5
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	4.26	5.49	4.63	5.80	6.11	6.29	7.51	6.66	7.83	8.14
	3H	5.82	6.90	6.20	7.23	7.60	8.28	9.36	8.66	9.69	10.06
	4H	6.37	7.38	6.77	7.73	8.12	9.19	10.21	9.60	10.56	10.94
	6H	6.93	7.86	7.34	8.23	8.62	10.08	11.01	10.50	11.38	11.78
	8H	7.22	8.10	7.65	8.49	8.90	10.48	11.36	10.92	11.76	12.16
	12H	7.58	8.42	8.01	8.80	9.23	10.92	11.77	11.36	12.15	12.58
4H	2H	5.46	6.47	5.86	6.82	7.21	6.92	7.93	7.32	8.28	8.67
	3H	7.67	8.50	8.08	8.91	9.31	9.17	10.00	9.58	10.41	10.81
	4H	8.71	9.46	9.15	9.88	10.33	10.25	10.99	10.68	11.41	11.86
	6H	9.61	10.26	10.08	10.71	11.17	11.36	12.01	11.82	12.45	12.92
	8H	9.99	10.60	10.46	11.05	11.52	11.88	12.49	12.35	12.93	13.41
	12H	10.41	10.95	10.90	11.43	11.91	12.45	12.99	12.94	13.47	13.95
8H	4H	9.52	10.12	9.99	10.57	11.04	10.74	11.34	11.21	11.79	12.26
	6H	10.90	11.40	11.41	11.90	12.38	12.14	12.63	12.64	13.13	13.61
	8H	11.62	12.06	12.14	12.58	13.07	12.87	13.32	13.40	13.83	14.33
	12H	12.37	12.76	12.89	13.26	13.83	13.70	14.10	14.22	14.59	15.17
12H	4H	9.68	10.22	10.17	10.70	11.17	10.84	11.37	11.33	11.86	12.33
	6H	11.23	11.68	11.76	12.19	12.69	12.35	12.80	12.88	13.31	13.81
	8H	12.14	12.54	12.66	13.03	13.61	13.23	13.63	13.75	14.12	14.70