

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: P1057974

Luminaire Tested: S122RDRP-S485D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057974  
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-S485D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

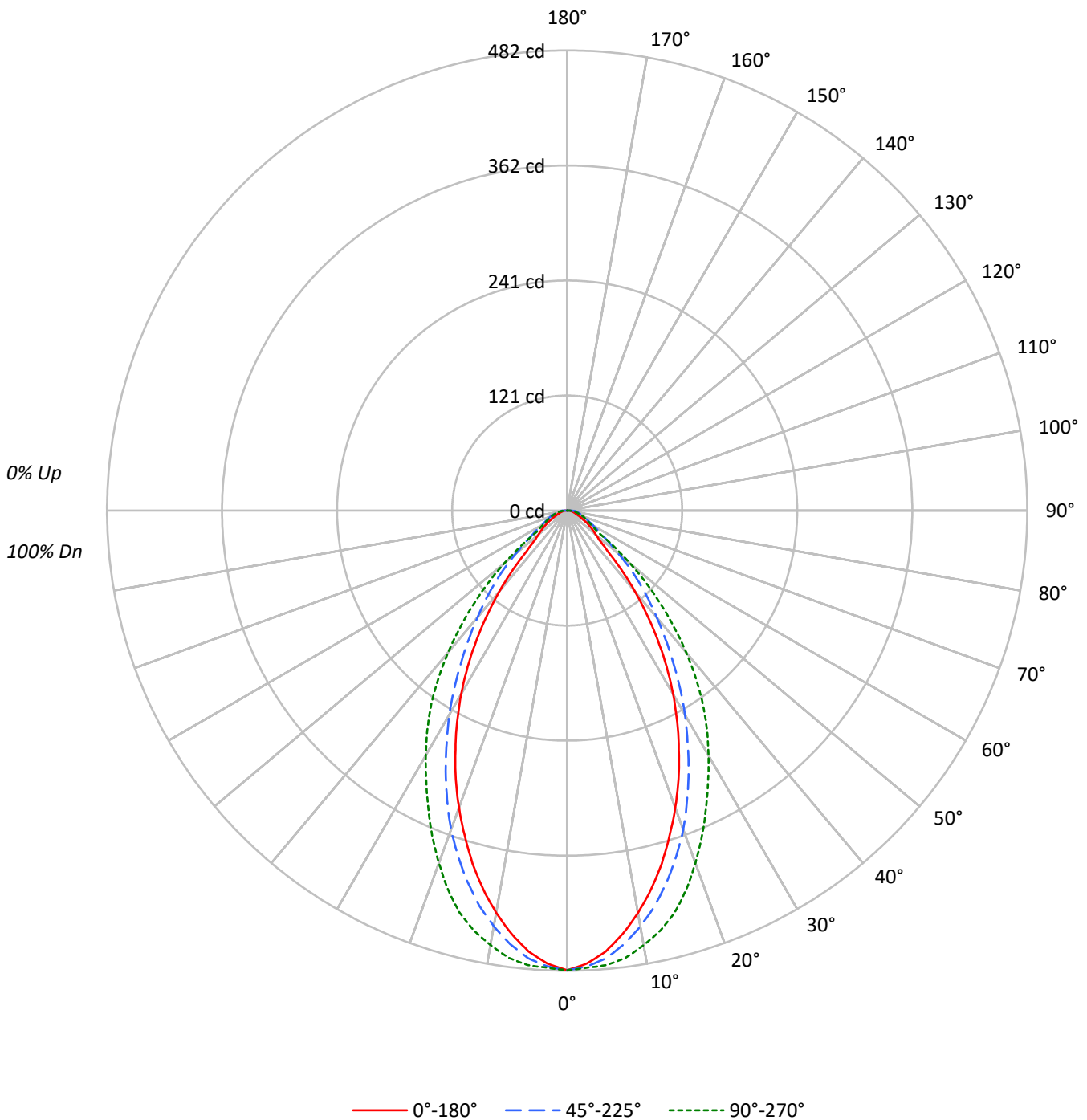
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 584.0 lumens  
Efficiency: N/A  
Efficacy: 29.8 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°	8885	8885	8885
5°	8587	8719	8852
10°	8016	8284	8660
15°	7311	7695	8323
20°	6504	6983	7713
25°	5638	6132	7006
30°	4726	5259	6311
35°	3724	4352	5591
40°	2654	3514	4671
45°	1568	2782	3622
50°	1128	2012	2463
55°	943	1451	1242
60°	764	1163	1055
65°	624	1030	969
70°	540	1003	928
75°	513	1020	920
80°	531	1211	988
85°	762	1969	1207

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3622 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.2	7.6
10°-20°	113.5	19.4
20°-30°	140.0	24.0
30°-40°	124.5	21.3
40°-50°	79.5	13.6
50°-60°	38.1	6.5
60°-70°	22.4	3.8
70°-80°	14.3	2.4
80°-90°	7.6	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°	297.6	51.0
0°-40°	422.1	72.3
0°-60°	539.7	92.4
0°-90°	584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	584.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	464	472	471	474	478	43
15°	383	392	403	421	436	107
25°	277	288	301	323	344	127
35°	165	178	193	222	248	103
45°	60	78	107	124	139	50
55°	29	38	45	44	39	26
65°	14	26	24	22	22	14
75°	7	16	14	14	13	8
85°	4	9	9	8	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	481.5	481.5	481.5	481.5	481.5
2.5°	475.0	482.9	477.9	477.9	479.3
5°	463.6	472.2	470.7	473.6	477.9
7.5°	447.1	456.4	457.9	465.7	472.2
10°	427.8	437.8	442.1	453.6	462.2
12.5°	406.4	416.4	424.2	438.5	450.7
15°	382.7	392.0	402.8	421.4	435.7
17.5°	357.0	369.2	379.9	399.2	415.7
20°	331.2	342.7	355.6	374.2	392.8
22.5°	304.8	315.5	328.4	347.7	369.2
25°	276.9	287.6	301.2	322.6	344.1
27.5°	249.7	260.4	273.3	296.9	319.8
30°	221.8	232.5	246.8	271.1	296.2
32.5°	193.9	205.3	219.6	246.1	272.6
35°	165.3	178.1	193.2	222.5	248.2
37.5°	137.4	150.2	168.8	197.5	221.8
40°	110.2	125.2	145.9	171.7	193.9
42.5°	83.7	100.2	125.9	146.7	166.0
45°	60.1	78.0	106.6	123.8	138.8
47.5°	45.8	58.7	88.0	101.6	112.3
50°	39.3	47.2	70.1	80.1	85.8
52.5°	34.3	41.5	55.8	60.8	60.8
55°	29.3	37.9	45.1	43.6	38.6
57.5°	25.0	34.3	37.2	31.5	32.9
60°	20.7	31.5	31.5	27.9	28.6
62.5°	17.2	29.3	27.2	24.3	25.0
65°	14.3	25.8	23.6	21.5	22.2
67.5°	11.4	22.9	20.7	19.3	19.3
70°	10.0	20.7	18.6	17.2	17.2
72.5°	8.6	17.9	16.5	15.0	15.0
75°	7.2	15.7	14.3	13.6	12.9
77.5°	6.4	13.6	12.9	11.4	10.7
80°	5.0	11.4	11.4	10.7	9.3
82.5°	4.3	10.0	10.0	9.3	7.9
85°	3.6	8.6	9.3	7.9	5.7
87.5°	2.9	7.9	7.9	6.4	4.3
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	9.25	10.53	9.62	10.84	11.16	9.05	10.33	9.42	10.64	10.96
	3H	10.48	11.62	10.86	11.95	12.31	10.65	11.78	11.03	12.11	12.48
	4H	10.94	12.00	11.34	12.35	12.73	11.36	12.42	11.77	12.77	13.16
	6H	11.32	12.29	11.73	12.66	13.06	12.01	12.98	12.43	13.36	13.75
	8H	11.47	12.39	11.90	12.79	13.19	12.34	13.26	12.77	13.65	14.06
	12H	11.63	12.51	12.06	12.90	13.33	12.64	13.52	13.07	13.90	14.33
4H	2H	9.80	10.86	10.21	11.21	11.60	9.65	10.70	10.05	11.06	11.44
	3H	11.50	12.37	11.91	12.77	13.18	11.48	12.35	11.90	12.76	13.16
	4H	12.29	13.08	12.73	13.50	13.94	12.36	13.14	12.79	13.56	14.00
	6H	12.94	13.61	13.40	14.06	14.53	13.20	13.87	13.66	14.32	14.79
	8H	13.18	13.82	13.65	14.27	14.74	13.62	14.26	14.09	14.70	15.17
	12H	13.43	13.99	13.92	14.48	14.95	14.02	14.58	14.51	15.07	15.54
8H	4H	12.71	13.35	13.18	13.79	14.26	12.77	13.41	13.24	13.85	14.32
	6H	13.69	14.21	14.19	14.70	15.18	13.85	14.37	14.36	14.87	15.35
	8H	14.18	14.65	14.70	15.16	15.65	14.45	14.91	14.97	15.43	15.92
	12H	14.68	15.10	15.20	15.59	16.16	15.05	15.46	15.57	15.96	16.53
12H	4H	12.78	13.34	13.27	13.82	14.30	12.85	13.41	13.33	13.89	14.37
	6H	13.85	14.32	14.38	14.84	15.33	14.02	14.48	14.54	15.00	15.49
	8H	14.49	14.90	15.01	15.40	15.97	14.73	15.14	15.25	15.64	16.21