

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: P1057956

Luminaire Tested: S122RDRP-S485D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057956  
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-S485D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

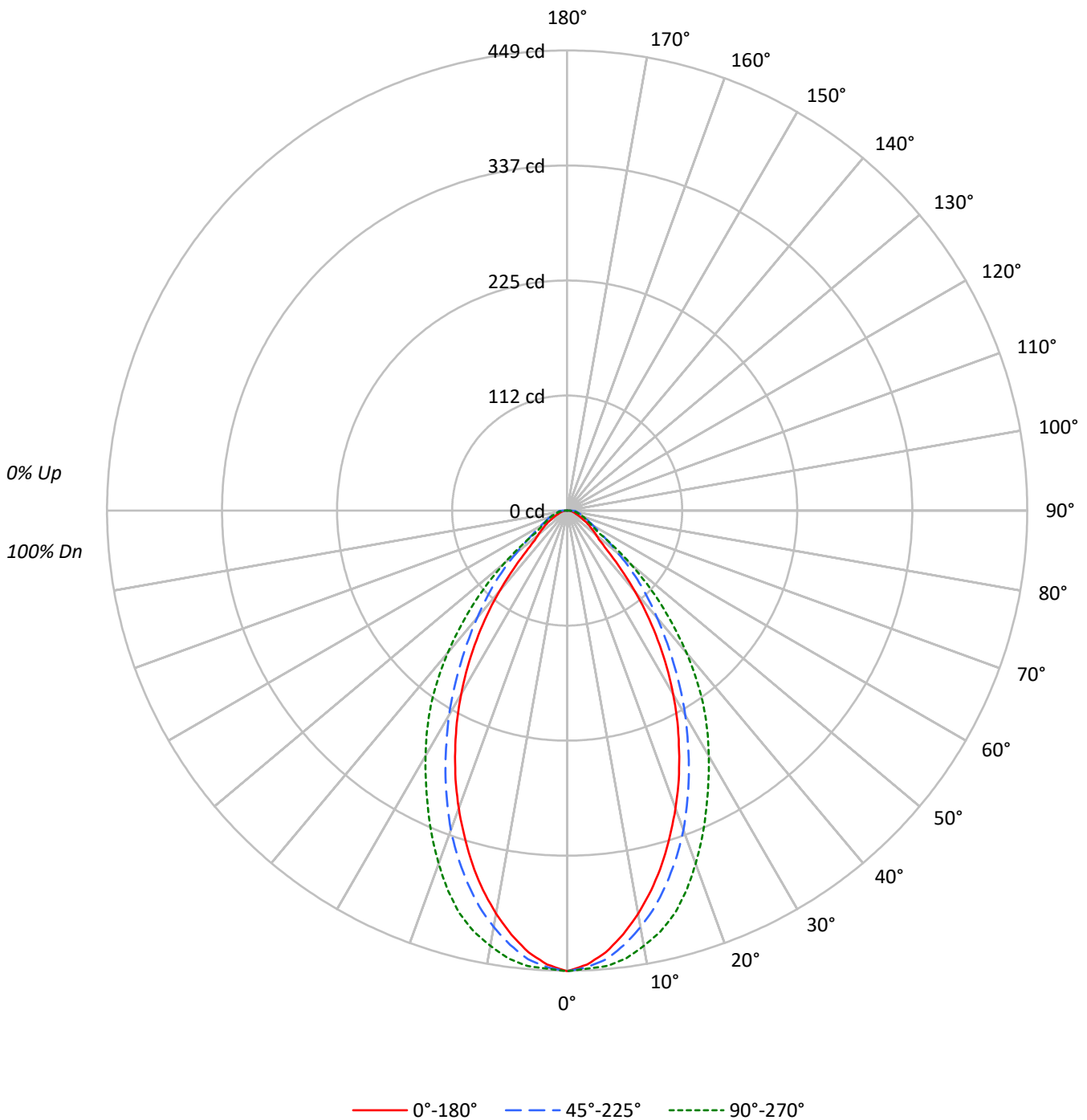
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 545.1 lumens  
Efficiency: N/A  
Efficacy: 27.8 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 (Ain): 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°	8293	8293	8293
5°	8015	8139	8261
10°	7482	7731	8081
15°	6824	7181	7767
20°	6072	6517	7199
25°	5261	5723	6540
30°	4411	4909	5889
35°	3474	4061	5219
40°	2476	3281	4360
45°	1464	2597	3379
50°	1054	1877	2299
55°	881	1354	1161
60°	716	1085	985
65°	585	961	904
70°	502	939	863
75°	478	955	856
80°	499	1137	924
85°	699	1842	1122

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3379 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.2	7.6
10°-20°	105.9	19.4
20°-30°	130.6	24.0
30°-40°	116.2	21.3
40°-50°	74.2	13.6
50°-60°	35.6	6.5
60°-70°	20.9	3.8
70°-80°	13.4	2.5
80°-90°	7.1	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°	277.7	51.0
0°-40°	393.9	72.3
0°-60°	503.7	92.4
0°-90°	545.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	545.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	449	449	449	449	449	
5°	433	441	439	442	446	40
15°	357	366	376	393	407	100
25°	258	268	281	301	321	118
35°	154	166	180	208	232	96
45°	56	73	100	116	130	47
55°	27	35	42	41	36	25
65°	13	24	22	20	21	13
75°	7	15	13	13	12	7
85°	3	8	9	7	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	449.4	449.4	449.4	449.4	449.4
2.5°	443.4	450.7	446.0	446.0	447.4
5°	432.7	440.7	439.4	442.0	446.0
7.5°	417.3	426.0	427.3	434.7	440.7
10°	399.3	408.6	412.6	423.3	431.3
12.5°	379.3	388.6	396.0	409.3	420.7
15°	357.2	365.9	375.9	393.3	406.6
17.5°	333.2	344.5	354.6	372.6	387.9
20°	309.2	319.8	331.9	349.2	366.6
22.5°	284.4	294.5	306.5	324.5	344.5
25°	258.4	268.4	281.1	301.1	321.2
27.5°	233.0	243.0	255.1	277.1	298.5
30°	207.0	217.0	230.4	253.1	276.4
32.5°	181.0	191.6	205.0	229.7	254.4
35°	154.2	166.3	180.3	207.7	231.7
37.5°	128.2	140.2	157.6	184.3	207.0
40°	102.8	116.8	136.2	160.3	181.0
42.5°	78.1	93.5	117.5	136.9	154.9
45°	56.1	72.8	99.5	115.5	129.5
47.5°	42.7	54.8	82.1	94.8	104.8
50°	36.7	44.1	65.4	74.8	80.1
52.5°	32.1	38.7	52.1	56.8	56.8
55°	27.4	35.4	42.1	40.7	36.1
57.5°	23.4	32.1	34.7	29.4	30.7
60°	19.4	29.4	29.4	26.0	26.7
62.5°	16.0	27.4	25.4	22.7	23.4
65°	13.4	24.0	22.0	20.0	20.7
67.5°	10.7	21.4	19.4	18.0	18.0
70°	9.3	19.4	17.4	16.0	16.0
72.5°	8.0	16.7	15.4	14.0	14.0
75°	6.7	14.7	13.4	12.7	12.0
77.5°	6.0	12.7	12.0	10.7	10.0
80°	4.7	10.7	10.7	10.0	8.7
82.5°	4.0	9.3	9.3	8.7	7.3
85°	3.3	8.0	8.7	7.3	5.3
87.5°	2.7	7.3	7.3	6.0	4.0
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	9.03	10.31	9.40	10.62	10.94	8.81	10.09	9.18	10.40	10.72
	3H	10.26	11.40	10.64	11.73	12.09	10.40	11.54	10.78	11.87	12.23
	4H	10.71	11.77	11.12	12.12	12.51	11.12	12.17	11.52	12.53	12.91
	6H	11.09	12.07	11.51	12.44	12.83	11.77	12.74	12.18	13.11	13.51
	8H	11.25	12.17	11.68	12.56	12.97	12.10	13.02	12.53	13.41	13.82
	12H	11.40	12.28	11.83	12.67	13.10	12.39	13.27	12.82	13.66	14.09
4H	2H	9.58	10.63	9.98	10.99	11.37	9.40	10.46	9.81	10.81	11.20
	3H	11.27	12.14	11.68	12.55	12.95	11.24	12.11	11.65	12.51	12.92
	4H	12.07	12.85	12.50	13.27	13.71	12.11	12.89	12.55	13.31	13.76
	6H	12.71	13.39	13.17	13.83	14.30	12.96	13.63	13.42	14.08	14.55
	8H	12.96	13.59	13.43	14.04	14.51	13.38	14.01	13.85	14.46	14.93
	12H	13.20	13.76	13.69	14.24	14.72	13.78	14.34	14.26	14.82	15.30
8H	4H	12.48	13.12	12.95	13.57	14.04	12.53	13.16	13.00	13.61	14.08
	6H	13.46	13.98	13.96	14.48	14.96	13.62	14.14	14.12	14.63	15.11
	8H	13.95	14.42	14.47	14.93	15.42	14.21	14.67	14.73	15.19	15.68
	12H	14.45	14.86	14.96	15.35	15.93	14.80	15.22	15.32	15.71	16.28
12H	4H	12.55	13.11	13.04	13.59	14.07	12.61	13.17	13.09	13.65	14.12
	6H	13.63	14.10	14.15	14.61	15.10	13.78	14.25	14.30	14.76	15.26
	8H	14.26	14.67	14.78	15.17	15.74	14.49	14.90	15.01	15.40	15.97