

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: P1057790

Luminaire Tested: S122RDRP-S1005D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057790  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S1005D830-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

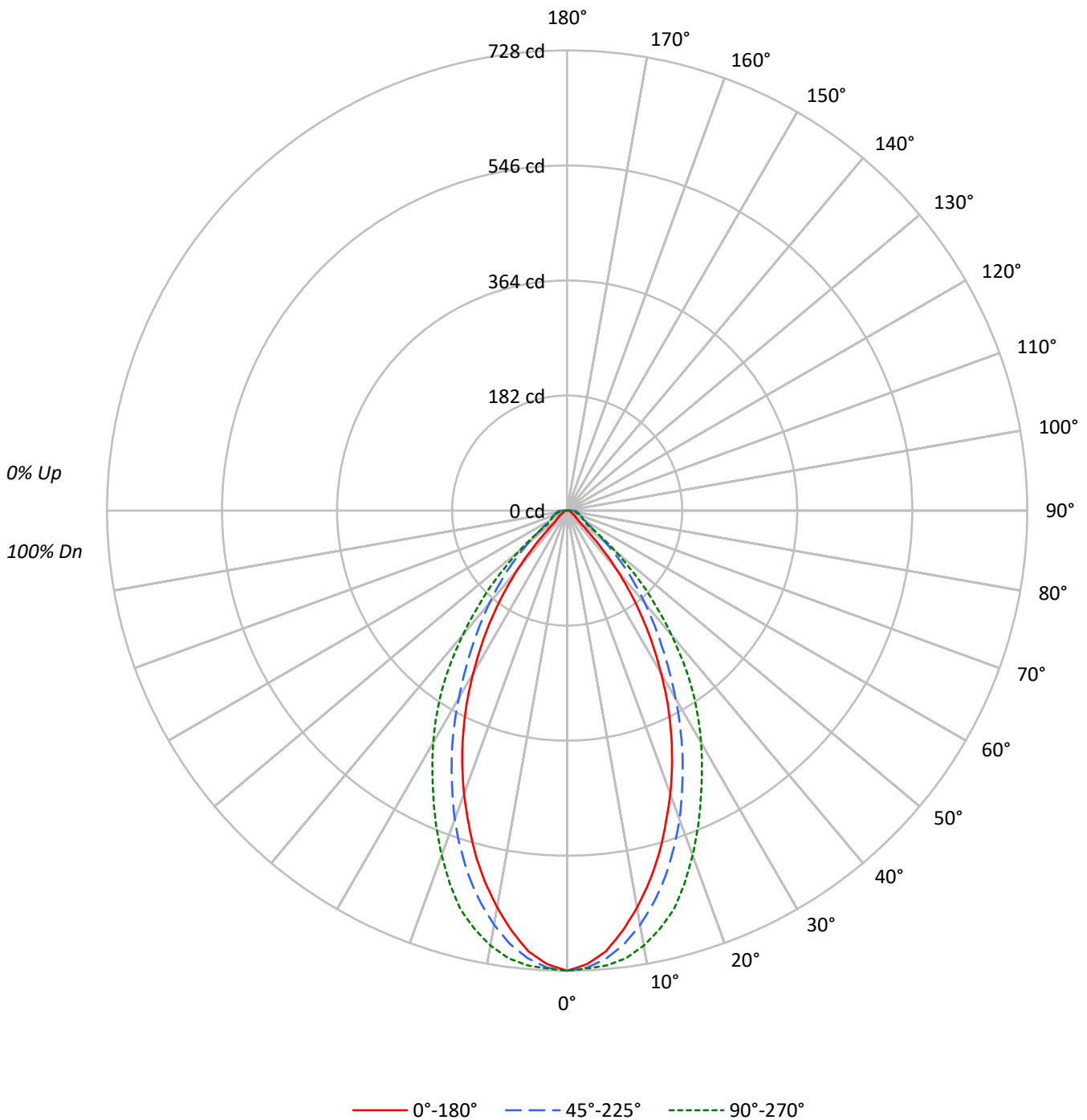
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 784.7 lumens  
Efficiency: N/A  
Efficacy: 18.8 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	77	82	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	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

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

	0°	45°	90°
0°	13432	13432	13432
5°	12966	13174	13379
10°	11941	12464	13090
15°	10736	11454	12467
20°	9365	10213	11391
25°	7922	8802	10192
30°	6328	7308	9032
35°	4681	5875	7758
40°	2956	4601	6181
45°	1164	3458	4548
50°	600	2322	2802
55°	492	1525	1255
60°	362	1236	1133
65°	306	1157	1157
70°	302	1203	1128
75°	399	1390	1191
80°	595	1775	1339
85°	889	2943	1778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 5880 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.6	8.5
10°-20°	168.2	21.4
20°-30°	199.8	25.5
30°-40°	166.2	21.2
40°-50°	92.9	11.8
50°-60°	37.5	4.8
60°-70°	24.0	3.1
70°-80°	18.0	2.3
80°-90°	11.5	1.5
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°	434.6	55.4
0°-40°	600.8	76.6
0°-60°	731.2	93.2
0°-90°	784.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	784.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	700	713	711	717	722	65
15°	562	579	600	630	653	156
25°	389	404	432	466	501	177
35°	208	227	261	304	344	129
45°	45	75	132	155	174	42
55°	15	32	47	46	39	13
65°	7	28	26	25	26	7
75°	6	20	20	18	17	6
85°	4	13	14	13	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	727.9	727.9	727.9	727.9	727.9
2.5°	718.2	729.3	723.7	723.7	725.1
5°	700.0	712.6	711.2	716.8	722.3
7.5°	670.7	684.7	691.7	704.2	714.0
10°	637.3	652.6	665.2	684.7	698.6
12.5°	601.0	616.4	634.5	659.6	677.7
15°	562.0	578.7	599.6	630.3	652.6
17.5°	518.7	536.9	560.6	594.1	617.8
20°	476.9	495.0	520.1	553.6	580.1
22.5°	433.7	449.0	475.5	509.0	541.1
25°	389.1	404.4	432.3	465.8	500.6
27.5°	344.4	359.8	387.7	422.5	461.6
30°	297.0	313.8	343.0	382.1	423.9
32.5°	252.4	269.1	299.8	343.0	384.9
35°	207.8	227.3	260.8	304.0	344.4
37.5°	164.5	186.9	224.5	265.0	301.2
40°	122.7	146.4	191.0	225.9	256.6
42.5°	80.9	108.8	160.4	189.7	213.4
45°	44.6	75.3	132.5	154.8	174.3
47.5°	25.1	48.8	104.6	122.7	133.9
50°	20.9	36.3	80.9	93.4	97.6
52.5°	16.7	33.5	61.4	68.3	65.5
55°	15.3	32.1	47.4	46.0	39.0
57.5°	12.6	32.1	37.7	33.5	33.5
60°	9.8	30.7	33.5	29.3	30.7
62.5°	8.4	29.3	30.7	27.9	27.9
65°	7.0	27.9	26.5	25.1	26.5
67.5°	5.6	25.1	25.1	23.7	23.7
70°	5.6	23.7	22.3	20.9	20.9
72.5°	5.6	20.9	20.9	19.5	19.5
75°	5.6	19.5	19.5	18.1	16.7
77.5°	5.6	16.7	18.1	16.7	15.3
80°	5.6	15.3	16.7	15.3	12.6
82.5°	5.6	13.9	15.3	13.9	11.2
85°	4.2	12.6	13.9	12.6	8.4
87.5°	4.2	12.6	13.9	11.2	7.0
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	7.40	8.62	7.76	8.93	9.24	8.47	9.69	8.84	10.00	10.32
	3H	8.73	9.81	9.11	10.14	10.51	10.50	11.58	10.88	11.91	12.28
	4H	9.30	10.31	9.71	10.66	11.05	11.45	12.46	11.85	12.81	13.20
	6H	9.87	10.80	10.29	11.17	11.57	12.39	13.32	12.81	13.70	14.09
	8H	10.20	11.07	10.63	11.47	11.87	12.85	13.73	13.28	14.12	14.52
	12H	10.50	11.34	10.94	11.73	12.16	13.27	14.11	13.71	14.50	14.93
4H	2H	8.36	9.37	8.76	9.72	10.11	9.15	10.16	9.55	10.51	10.89
	3H	10.38	11.22	10.80	11.62	12.03	11.43	12.26	11.84	12.66	13.07
	4H	11.46	12.21	11.90	12.63	13.08	12.57	13.32	13.01	13.74	14.18
	6H	12.33	12.98	12.80	13.43	13.90	13.74	14.39	14.20	14.83	15.30
	8H	12.74	13.35	13.21	13.80	14.27	14.30	14.91	14.77	15.36	15.83
	12H	13.13	13.66	13.61	14.14	14.62	14.85	15.39	15.34	15.87	16.34
8H	4H	12.23	12.84	12.70	13.28	13.76	13.12	13.73	13.59	14.17	14.65
	6H	13.57	14.06	14.07	14.56	15.04	14.57	15.07	15.08	15.57	16.05
	8H	14.28	14.73	14.81	15.25	15.74	15.34	15.78	15.86	16.30	16.79
	12H	14.98	15.37	15.50	15.87	16.44	16.13	16.52	16.65	17.02	17.59
12H	4H	12.39	12.92	12.87	13.40	13.88	13.23	13.76	13.71	14.25	14.72
	6H	13.89	14.33	14.41	14.85	15.34	14.80	15.24	15.32	15.76	16.25
	8H	14.79	15.18	15.31	15.68	16.25	15.71	16.10	16.22	16.59	17.17