

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058564

Luminaire Tested: S122RDR-H865D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058564  
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: S122RDR-H865D930-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

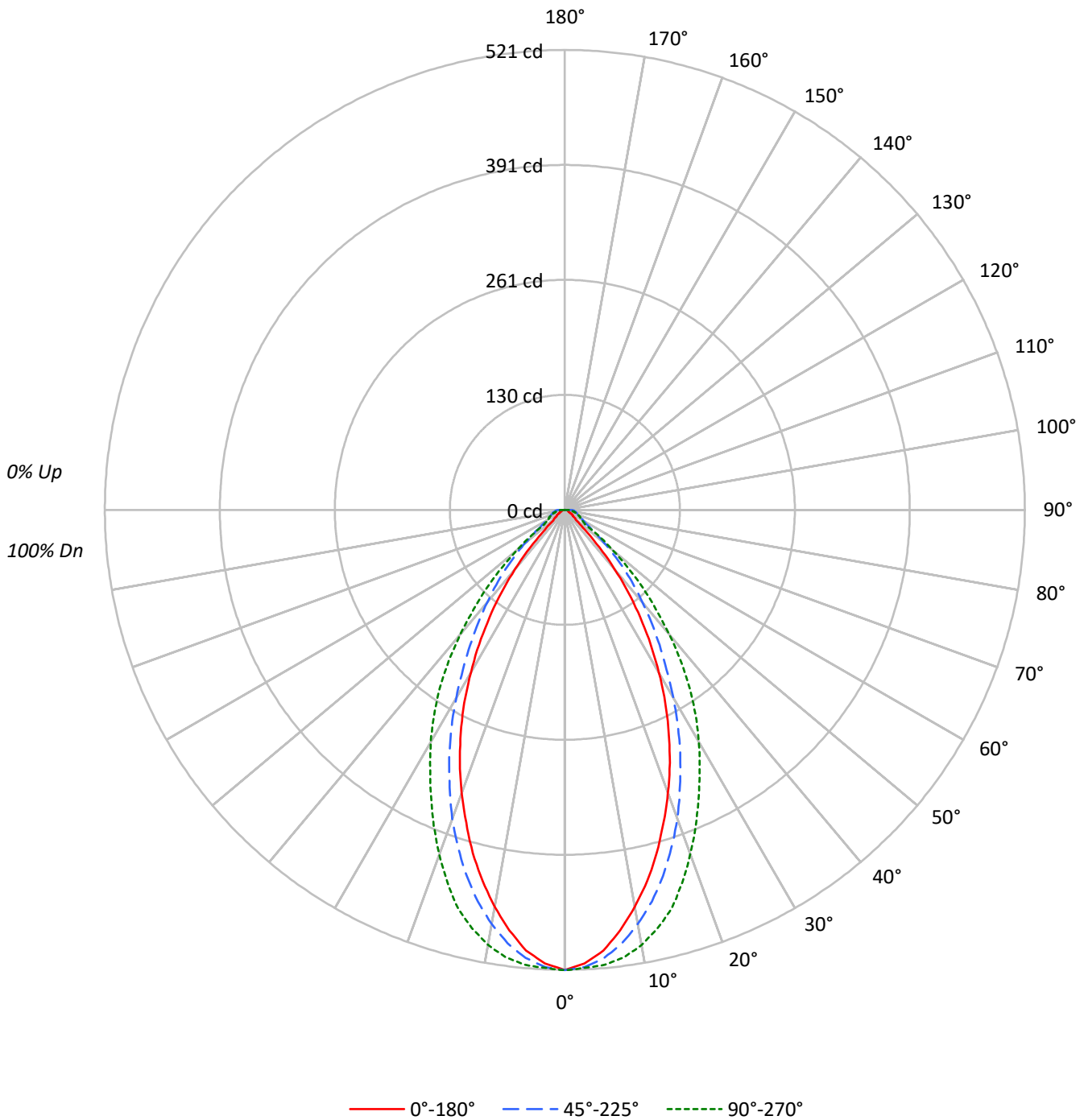
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 562.1 lumens  
Efficiency: N/A  
Efficacy: 18.0 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): 31.2  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	56				56
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	60	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				42

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

	0°	45°	90°
0°	9621	9621	9621
5°	9287	9436	9584
10°	8553	8926	9376
15°	7689	8205	8931
20°	6708	7317	8159
25°	5674	6303	7301
30°	4534	5235	6469
35°	3352	4208	5557
40°	2117	3295	4427
45°	835	2476	3259
50°	431	1662	2007
55°	354	1094	901
60°	258	886	812
65°	218	830	830
70°	216	863	809
75°	285	998	856
80°	425	1275	956
85°	635	2117	1270

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 4230 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.7	8.5
10°-20°	120.5	21.4
20°-30°	143.1	25.5
30°-40°	119.1	21.2
40°-50°	66.5	11.8
50°-60°	26.9	4.8
60°-70°	17.2	3.1
70°-80°	12.9	2.3
80°-90°	8.2	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°	311.3	55.4
0°-40°	430.4	76.6
0°-60°	523.7	93.2
0°-90°	562.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	562.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	501	510	509	513	517	46
15°	402	414	430	452	468	112
25°	279	290	310	334	359	127
35°	149	163	187	218	247	92
45°	32	54	95	111	125	30
55°	11	23	34	33	28	10
65°	5	20	19	18	19	5
75°	4	14	14	13	12	4
85°	3	9	10	9	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	521.4	521.4	521.4	521.4	521.4
2.5°	514.4	522.4	518.4	518.4	519.4
5°	501.4	510.4	509.4	513.4	517.4
7.5°	480.4	490.4	495.4	504.4	511.4
10°	456.5	467.5	476.4	490.4	500.4
12.5°	430.5	441.5	454.5	472.4	485.4
15°	402.5	414.5	429.5	451.5	467.5
17.5°	371.6	384.6	401.5	425.5	442.5
20°	341.6	354.6	372.6	396.5	415.5
22.5°	310.6	321.6	340.6	364.6	387.5
25°	278.7	289.7	309.6	333.6	358.6
27.5°	246.7	257.7	277.7	302.6	330.6
30°	212.8	224.7	245.7	273.7	303.6
32.5°	180.8	192.8	214.7	245.7	275.7
35°	148.8	162.8	186.8	217.7	246.7
37.5°	117.9	133.8	160.8	189.8	215.7
40°	87.9	104.9	136.8	161.8	183.8
42.5°	57.9	77.9	114.9	135.8	152.8
45°	32.0	53.9	94.9	110.9	124.9
47.5°	18.0	35.0	74.9	87.9	95.9
50°	15.0	26.0	57.9	66.9	69.9
52.5°	12.0	24.0	43.9	48.9	46.9
55°	11.0	23.0	34.0	33.0	28.0
57.5°	9.0	23.0	27.0	24.0	24.0
60°	7.0	22.0	24.0	21.0	22.0
62.5°	6.0	21.0	22.0	20.0	20.0
65°	5.0	20.0	19.0	18.0	19.0
67.5°	4.0	18.0	18.0	17.0	17.0
70°	4.0	17.0	16.0	15.0	15.0
72.5°	4.0	15.0	15.0	14.0	14.0
75°	4.0	14.0	14.0	13.0	12.0
77.5°	4.0	12.0	13.0	12.0	11.0
80°	4.0	11.0	12.0	11.0	9.0
82.5°	4.0	10.0	11.0	10.0	8.0
85°	3.0	9.0	10.0	9.0	6.0
87.5°	3.0	9.0	10.0	8.0	5.0
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	6.24	7.46	6.60	7.77	8.09	7.31	8.53	7.68	8.85	9.16
	3H	7.57	8.66	7.95	8.99	9.35	9.34	10.43	9.72	10.76	11.12
	4H	8.15	9.16	8.55	9.51	9.89	10.30	11.31	10.70	11.66	12.05
	6H	8.71	9.64	9.13	10.01	10.41	11.25	12.17	11.66	12.55	12.94
	8H	9.04	9.92	9.47	10.31	10.71	11.69	12.57	12.13	12.97	13.37
	12H	9.34	10.19	9.78	10.57	11.00	12.12	12.96	12.55	13.34	13.77
4H	2H	7.20	8.21	7.61	8.56	8.95	7.99	9.00	8.39	9.35	9.74
	3H	9.23	10.06	9.64	10.47	10.87	10.27	11.11	10.69	11.51	11.92
	4H	10.31	11.06	10.75	11.48	11.92	11.42	12.17	11.86	12.59	13.04
	6H	11.18	11.83	11.65	12.28	12.74	12.59	13.24	13.06	13.69	14.16
	8H	11.59	12.20	12.06	12.65	13.12	13.15	13.76	13.62	14.21	14.68
	12H	11.97	12.51	12.46	12.99	13.47	13.70	14.23	14.19	14.72	15.19
8H	4H	11.08	11.69	11.55	12.13	12.61	11.97	12.58	12.44	13.03	13.50
	6H	12.42	12.92	12.93	13.42	13.90	13.43	13.92	13.93	14.42	14.90
	8H	13.14	13.58	13.66	14.10	14.59	14.19	14.64	14.72	15.15	15.65
	12H	13.83	14.22	14.35	14.72	15.29	14.98	15.37	15.49	15.87	16.44
12H	4H	11.24	11.77	11.72	12.26	12.73	12.08	12.61	12.57	13.10	13.57
	6H	12.74	13.19	13.27	13.71	14.20	13.65	14.10	14.18	14.62	15.11
	8H	13.65	14.04	14.16	14.53	15.11	14.56	14.95	15.08	15.45	16.02