

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: P1058575

Luminaire Tested: S122RDR-H865D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058575  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D935-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

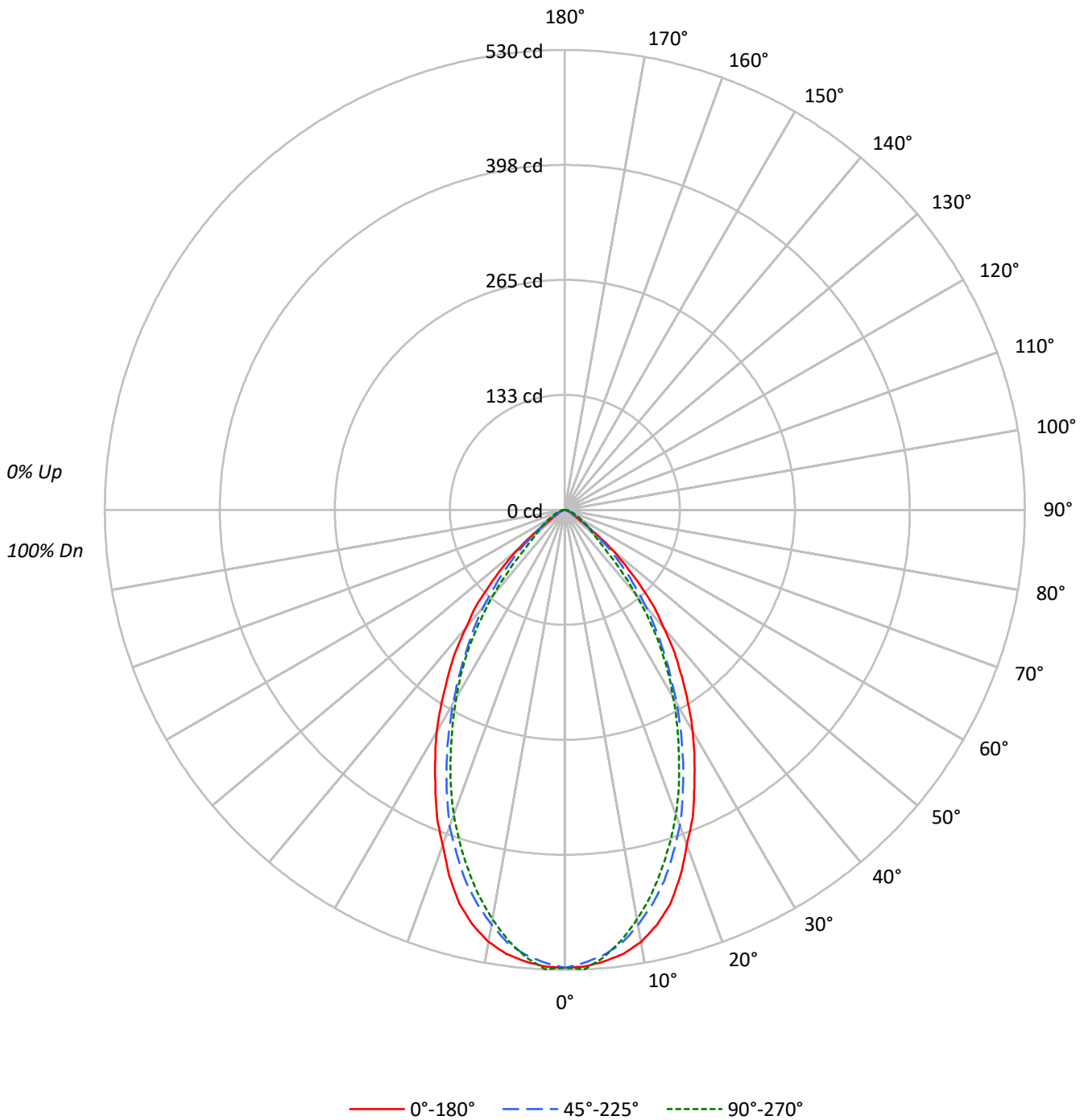
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 567.5 lumens  
Efficiency: N/A  
Efficacy: 18.2 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44				44

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

	0°	45°	90°
0°	9737	9737	9737
5°	9676	9539	9580
10°	9473	9099	8979
15°	8975	8451	8209
20°	8067	7611	7342
25°	7183	6562	6326
30°	6283	5476	5318
35°	5291	4438	4294
40°	4261	3502	3095
45°	3189	2529	1842
50°	1995	1633	1209
55°	679	881	981
60°	388	543	779
65°	275	367	598
70°	227	286	453
75°	150	228	378
80°	117	223	340
85°	0	0	233

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3189 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.6	8.6
10°-20°	124.5	21.9
20°-30°	149.9	26.4
30°-40°	128.1	22.6
40°-50°	75.0	13.2
50°-60°	27.2	4.8
60°-70°	9.6	1.7
70°-80°	3.9	0.7
80°-90°	0.7	0.1
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°	323.0	56.9
0°-40°	451.1	79.5
0°-60°	553.3	97.5
0°-90°	567.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	567.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	522	524	515	517	517	49
15°	470	462	442	434	430	130
25°	353	338	322	317	311	162
35°	235	217	197	195	191	147
45°	122	110	97	81	71	94
55°	21	30	27	28	30	26
65°	6	7	8	12	14	7
75°	2	3	3	4	5	3
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	527.7	527.7	527.7	527.7	527.7
2.5°	526.6	527.7	522.4	527.7	529.8
5°	522.4	523.5	515.0	517.2	517.2
7.5°	516.1	515.0	503.5	501.4	500.3
10°	505.6	502.4	485.6	482.4	479.2
12.5°	489.8	483.4	465.5	460.3	456.1
15°	469.8	462.4	442.4	433.9	429.7
17.5°	442.4	433.9	415.0	406.6	402.3
20°	410.8	402.3	387.6	378.1	373.9
22.5°	384.4	370.7	355.0	348.6	343.4
25°	352.8	338.1	322.3	317.0	310.7
27.5°	323.4	305.4	289.6	285.4	280.2
30°	294.9	276.0	257.0	257.0	249.6
32.5°	264.4	246.5	226.5	225.4	221.2
35°	234.9	217.0	197.0	194.9	190.6
37.5°	207.5	189.6	170.6	164.3	159.0
40°	176.9	161.1	145.4	134.8	128.5
42.5°	152.7	134.8	119.0	106.4	98.0
45°	122.2	109.5	96.9	81.1	70.6
47.5°	94.8	86.4	75.8	57.9	52.7
50°	69.5	65.3	56.9	43.2	42.1
52.5°	44.2	46.3	41.1	33.7	36.9
55°	21.1	29.5	27.4	28.4	30.5
57.5°	13.7	14.7	20.0	23.2	25.3
60°	10.5	10.5	14.7	19.0	21.1
62.5°	8.4	8.4	11.6	15.8	16.9
65°	6.3	7.4	8.4	11.6	13.7
67.5°	5.3	5.3	6.3	9.5	10.5
70°	4.2	4.2	5.3	7.4	8.4
72.5°	3.2	3.2	4.2	6.3	6.3
75°	2.1	3.2	3.2	4.2	5.3
77.5°	2.1	2.1	2.1	3.2	4.2
80°	1.1	1.1	2.1	2.1	3.2
82.5°	1.1	1.1	1.1	1.1	2.1
85°	0.0	0.0	0.0	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0
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	3.77	4.94	4.14	5.25	5.56	7.20	8.36	7.56	8.67	8.99
	3H	4.30	5.32	4.68	5.65	6.02	7.92	8.94	8.30	9.28	9.64
	4H	4.44	5.39	4.84	5.74	6.12	8.14	9.09	8.54	9.44	9.83
	6H	4.51	5.38	4.93	5.75	6.15	8.29	9.16	8.71	9.53	9.93
	8H	4.52	5.34	4.96	5.73	6.14	8.32	9.14	8.76	9.53	9.94
	12H	4.49	5.27	4.92	5.65	6.09	8.32	9.11	8.76	9.49	9.92
4H	2H	4.08	5.03	4.49	5.38	5.77	7.16	8.11	7.57	8.46	8.85
	3H	4.75	5.52	5.16	5.92	6.33	8.03	8.80	8.45	9.21	9.61
	4H	5.00	5.68	5.43	6.10	6.55	8.32	9.00	8.75	9.42	9.87
	6H	5.12	5.71	5.59	6.15	6.63	8.54	9.13	9.01	9.58	10.05
	8H	5.14	5.69	5.62	6.14	6.61	8.59	9.13	9.06	9.58	10.06
	12H	5.11	5.59	5.60	6.07	6.55	8.61	9.09	9.10	9.58	10.05
8H	4H	5.10	5.65	5.58	6.10	6.57	8.25	8.79	8.72	9.24	9.71
	6H	5.28	5.72	5.79	6.22	6.70	8.51	8.95	9.02	9.45	9.93
	8H	5.33	5.73	5.86	6.25	6.74	8.57	8.97	9.10	9.49	9.98
	12H	5.31	5.66	5.83	6.16	6.73	8.64	8.99	9.16	9.48	10.06
12H	4H	5.09	5.57	5.58	6.05	6.53	8.20	8.68	8.69	9.16	9.64
	6H	5.28	5.67	5.81	6.19	6.69	8.46	8.86	8.99	9.37	9.87
	8H	5.36	5.71	5.88	6.21	6.78	8.55	8.90	9.07	9.39	9.97