

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: P1058330

Luminaire Tested: S122RDRP-H290D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058330  
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-H290D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

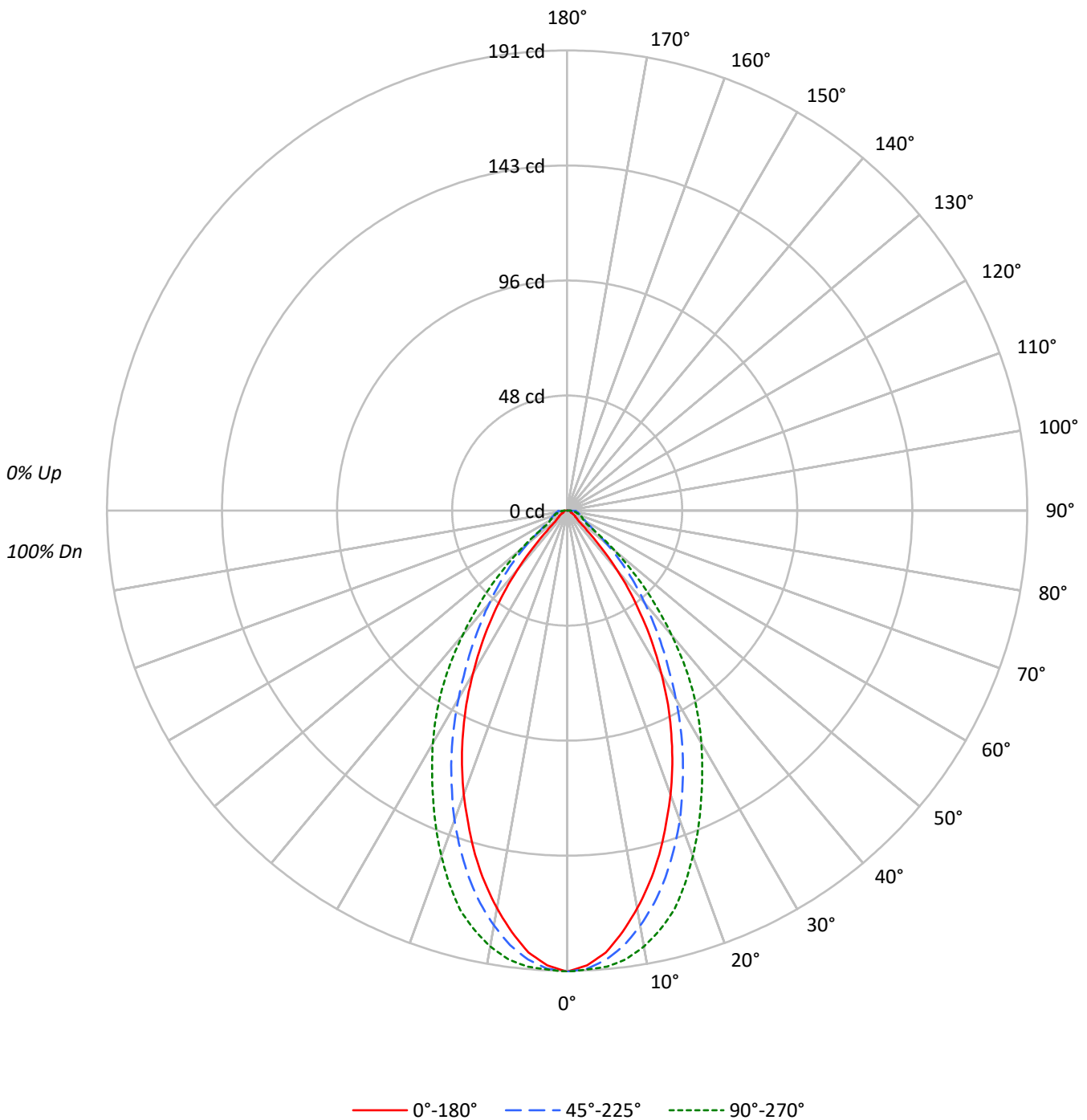
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 206.3 lumens  
Efficiency: N/A  
Efficacy: 17.6 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): 11.7  
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°	3532	3532	3532
5°	3410	3464	3519
10°	3140	3277	3442
15°	2823	3013	3278
20°	2462	2686	2997
25°	2083	2315	2681
30°	1664	1922	2376
35°	1230	1545	2041
40°	778	1209	1626
45°	305	908	1195
50°	158	611	738
55°	129	402	331
60°	96	325	299
65°	79	306	306
70°	81	318	297
75°	107	364	314
80°	159	468	351
85°	233	783	466

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 1565 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.5	8.5
10°-20°	44.2	21.4
20°-30°	52.6	25.5
30°-40°	43.7	21.2
40°-50°	24.4	11.8
50°-60°	9.9	4.8
60°-70°	6.3	3.1
70°-80°	4.7	2.3
80°-90°	3.0	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°	114.3	55.4
0°-40°	158.0	76.6
0°-60°	192.3	93.2
0°-90°	206.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	206.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	191	191	191	191	191	
5°	184	187	187	188	190	17
15°	148	152	158	166	172	41
25°	102	106	114	122	132	47
35°	55	60	69	80	91	34
45°	12	20	35	41	46	11
55°	4	8	12	12	10	4
65°	2	7	7	7	7	2
75°	2	5	5	5	4	2
85°	1	3	4	3	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	191.4	191.4	191.4	191.4	191.4
2.5°	188.9	191.8	190.3	190.3	190.7
5°	184.1	187.4	187.0	188.5	190.0
7.5°	176.4	180.1	181.9	185.2	187.8
10°	167.6	171.6	174.9	180.1	183.7
12.5°	158.1	162.1	166.9	173.5	178.2
15°	147.8	152.2	157.7	165.8	171.6
17.5°	136.4	141.2	147.4	156.2	162.5
20°	125.4	130.2	136.8	145.6	152.6
22.5°	114.1	118.1	125.1	133.9	142.3
25°	102.3	106.4	113.7	122.5	131.7
27.5°	90.6	94.6	102.0	111.1	121.4
30°	78.1	82.5	90.2	100.5	111.5
32.5°	66.4	70.8	78.8	90.2	101.2
35°	54.6	59.8	68.6	79.9	90.6
37.5°	43.3	49.1	59.0	69.7	79.2
40°	32.3	38.5	50.2	59.4	67.5
42.5°	21.3	28.6	42.2	49.9	56.1
45°	11.7	19.8	34.8	40.7	45.8
47.5°	6.6	12.8	27.5	32.3	35.2
50°	5.5	9.5	21.3	24.6	25.7
52.5°	4.4	8.8	16.1	18.0	17.2
55°	4.0	8.4	12.5	12.1	10.3
57.5°	3.3	8.4	9.9	8.8	8.8
60°	2.6	8.1	8.8	7.7	8.1
62.5°	2.2	7.7	8.1	7.3	7.3
65°	1.8	7.3	7.0	6.6	7.0
67.5°	1.5	6.6	6.6	6.2	6.2
70°	1.5	6.2	5.9	5.5	5.5
72.5°	1.5	5.5	5.5	5.1	5.1
75°	1.5	5.1	5.1	4.8	4.4
77.5°	1.5	4.4	4.8	4.4	4.0
80°	1.5	4.0	4.4	4.0	3.3
82.5°	1.5	3.7	4.0	3.7	2.9
85°	1.1	3.3	3.7	3.3	2.2
87.5°	1.1	3.3	3.7	2.9	1.8
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	2.73	3.95	3.09	4.26	4.57	3.82	5.04	4.19	5.36	5.67
	3H	4.07	5.16	4.45	5.49	5.85	5.84	6.93	6.22	7.26	7.62
	4H	4.65	5.66	5.06	6.02	6.40	6.80	7.81	7.20	8.16	8.55
	6H	5.23	6.16	5.65	6.53	6.93	7.74	8.67	8.16	9.04	9.44
	8H	5.57	6.45	6.00	6.84	7.25	8.19	9.07	8.62	9.46	9.86
	12H	5.88	6.72	6.31	7.10	7.53	8.61	9.45	9.04	9.83	10.26
4H	2H	3.71	4.72	4.11	5.07	5.45	4.51	5.52	4.91	5.87	6.26
	3H	5.74	6.57	6.15	6.98	7.38	6.78	7.61	7.19	8.02	8.42
	4H	6.81	7.56	7.25	7.98	8.43	7.93	8.68	8.37	9.10	9.55
	6H	7.69	8.34	8.16	8.79	9.25	9.09	9.74	9.56	10.19	10.66
	8H	8.11	8.72	8.58	9.17	9.64	9.65	10.26	10.12	10.71	11.18
	12H	8.50	9.03	8.98	9.51	9.99	10.20	10.73	10.69	11.22	11.69
8H	4H	7.59	8.19	8.06	8.64	9.11	8.49	9.09	8.96	9.54	10.01
	6H	8.93	9.42	9.43	9.92	10.40	9.93	10.43	10.43	10.92	11.41
	8H	9.66	10.10	10.18	10.62	11.11	10.70	11.14	11.22	11.66	12.15
	12H	10.35	10.74	10.87	11.24	11.81	11.48	11.88	12.00	12.37	12.95
12H	4H	7.74	8.28	8.23	8.76	9.24	8.59	9.13	9.08	9.61	10.09
	6H	9.25	9.69	9.77	10.21	10.70	10.15	10.60	10.68	11.12	11.61
	8H	10.16	10.55	10.68	11.05	11.62	11.06	11.46	11.58	11.95	12.53