

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: P1058315

Luminaire Tested: S122RDRP-H290D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058315  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H290D927-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

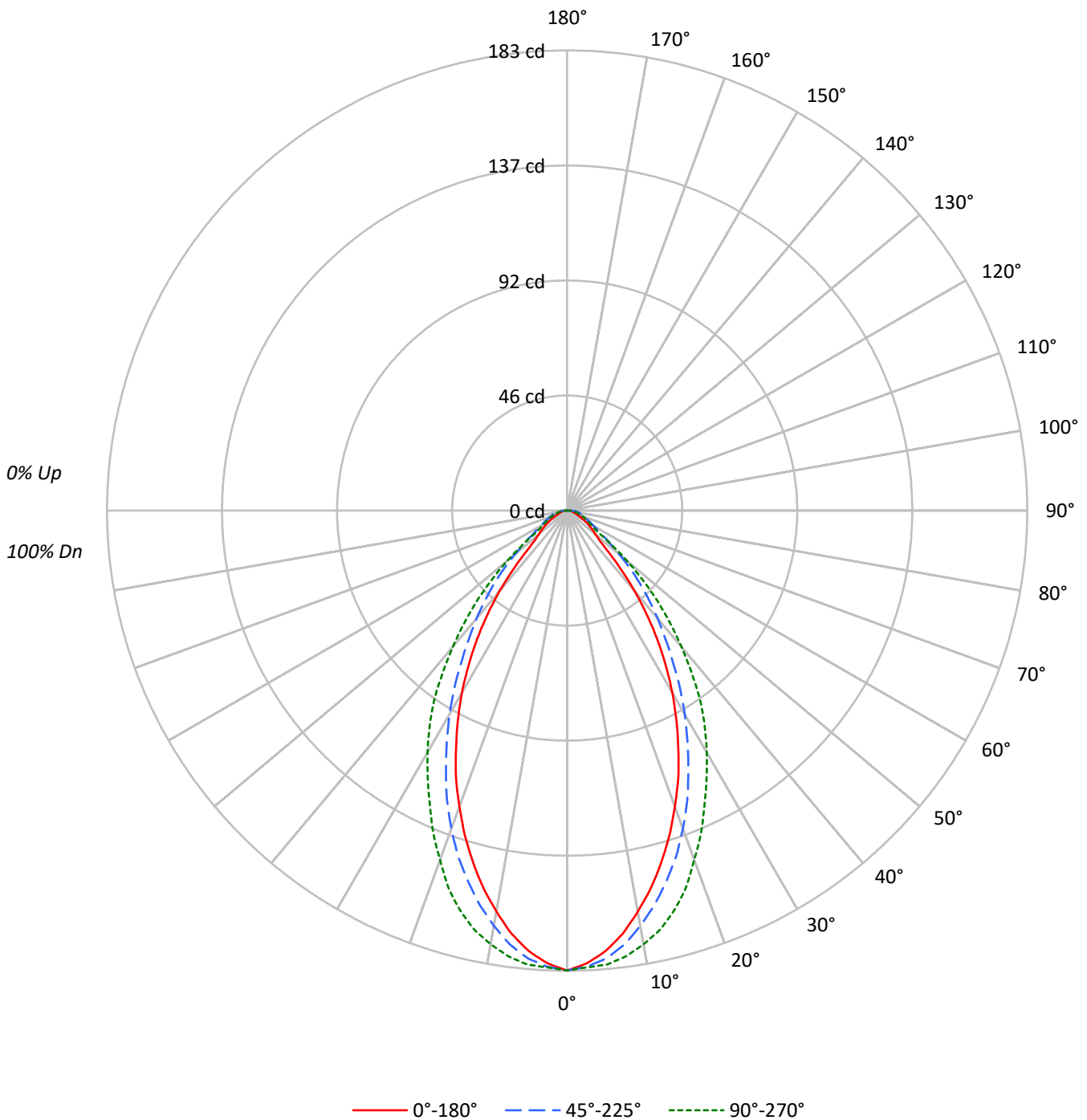
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 220.6 lumens  
Efficiency: N/A  
Efficacy: 18.9 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
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	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	101	99	97	98	96	94	94	93	91	89																												
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80																												
3	97	89	83	78	95	88	82	77	85	80	76	82	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	66	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	44	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°	3375	3375	3375
5°	3256	3312	3356
10°	3034	3142	3281
15°	2764	2913	3144
20°	2459	2643	2902
25°	2130	2321	2631
30°	1783	1992	2365
35°	1406	1649	2081
40°	1007	1349	1705
45°	590	1065	1320
50°	425	775	890
55°	357	553	466
60°	288	447	399
65°	236	397	367
70°	200	383	345
75°	192	406	335
80°	213	499	361
85°	360	783	508

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1320 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	16.8	7.6
10°-20°	42.9	19.5
20°-30°	52.8	23.9
30°-40°	46.6	21.1
40°-50°	29.8	13.5
50°-60°	14.5	6.6
60°-70°	8.6	3.9
70°-80°	5.5	2.5
80°-90°	3.0	1.4
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°	112.4	51.0
0°-40°	159.1	72.1
0°-60°	203.4	92.2
0°-90°	220.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	220.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	183	183	183	183	183	
5°	176	180	179	180	181	16
15°	145	149	152	159	165	40
25°	105	108	114	121	129	48
35°	62	66	73	83	92	39
45°	23	29	41	46	51	19
55°	11	15	17	16	14	10
65°	5	10	9	8	8	5
75°	3	6	6	5	5	3
85°	2	3	4	3	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	182.9	182.9	182.9	182.9	182.9
2.5°	180.2	183.5	181.5	181.5	181.8
5°	175.8	179.5	178.8	179.5	181.2
7.5°	169.7	173.4	174.1	176.8	178.8
10°	161.9	165.7	167.7	172.1	175.1
12.5°	153.8	157.6	160.6	166.3	170.7
15°	144.7	148.8	152.5	159.2	164.6
17.5°	135.3	139.3	144.1	150.8	157.2
20°	125.2	128.9	134.6	141.0	147.8
22.5°	115.4	118.8	124.8	130.9	139.0
25°	104.6	108.3	114.0	121.1	129.2
27.5°	94.1	97.8	103.6	111.7	120.1
30°	83.7	87.0	93.5	101.9	111.0
32.5°	72.9	76.2	83.3	92.4	101.9
35°	62.4	65.8	73.2	83.3	92.4
37.5°	52.0	55.7	64.1	73.5	81.3
40°	41.8	46.2	56.0	64.1	70.8
42.5°	31.7	37.8	48.2	55.0	60.4
45°	22.6	29.0	40.8	45.9	50.6
47.5°	17.2	22.3	33.7	37.4	40.5
50°	14.8	18.2	27.0	29.7	31.0
52.5°	12.8	16.2	21.6	22.6	21.9
55°	11.1	14.8	17.2	16.2	14.5
57.5°	9.4	13.8	14.2	12.1	12.5
60°	7.8	12.5	12.1	10.5	10.8
62.5°	6.4	11.5	10.5	9.4	9.4
65°	5.4	10.1	9.1	8.4	8.4
67.5°	4.4	9.1	8.1	7.4	7.4
70°	3.7	8.1	7.1	6.4	6.4
72.5°	3.4	7.1	6.4	5.7	5.7
75°	2.7	6.1	5.7	5.1	4.7
77.5°	2.4	5.1	5.1	4.7	4.0
80°	2.0	4.4	4.7	4.0	3.4
82.5°	2.0	4.0	4.0	3.7	2.7
85°	1.7	3.4	3.7	3.4	2.4
87.5°	1.0	3.0	3.0	2.7	1.7
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	7.52	6.60	7.83	8.14	5.76	7.04	6.13	7.35	7.67
	3H	7.42	8.56	7.80	8.89	9.25	7.33	8.46	7.71	8.79	9.16
	4H	7.85	8.91	8.26	9.27	9.65	8.01	9.07	8.41	9.42	9.80
	6H	8.20	9.18	8.62	9.55	9.95	8.65	9.63	9.07	10.00	10.39
	8H	8.40	9.32	8.83	9.71	10.12	8.94	9.87	9.37	10.26	10.67
	12H	8.61	9.50	9.05	9.88	10.31	9.27	10.15	9.70	10.54	10.97
4H	2H	6.74	7.80	7.15	8.15	8.54	6.37	7.43	6.77	7.78	8.16
	3H	8.39	9.27	8.81	9.67	10.08	8.16	9.04	8.58	9.44	9.85
	4H	9.17	9.95	9.60	10.37	10.81	9.01	9.80	9.45	10.22	10.66
	6H	9.77	10.45	10.24	10.90	11.37	9.86	10.54	10.32	10.99	11.45
	8H	10.07	10.70	10.54	11.15	11.62	10.25	10.89	10.72	11.33	11.81
	12H	10.38	10.94	10.87	11.43	11.90	10.70	11.26	11.18	11.74	12.22
8H	4H	9.59	10.22	10.05	10.67	11.14	9.47	10.11	9.94	10.55	11.03
	6H	10.54	11.06	11.04	11.56	12.04	10.57	11.09	11.07	11.59	12.07
	8H	11.07	11.54	11.59	12.06	12.55	11.15	11.62	11.67	12.13	12.62
	12H	11.64	12.06	12.16	12.55	13.12	11.83	12.25	12.35	12.74	13.31
12H	4H	9.65	10.22	10.14	10.70	11.17	9.55	10.12	10.04	10.60	11.07
	6H	10.72	11.19	11.24	11.70	12.19	10.75	11.22	11.27	11.74	12.23
	8H	11.40	11.81	11.91	12.31	12.88	11.46	11.88	11.98	12.37	12.94