

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: P1058334

Luminaire Tested: S122RDR-H290D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058334  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H290D935-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

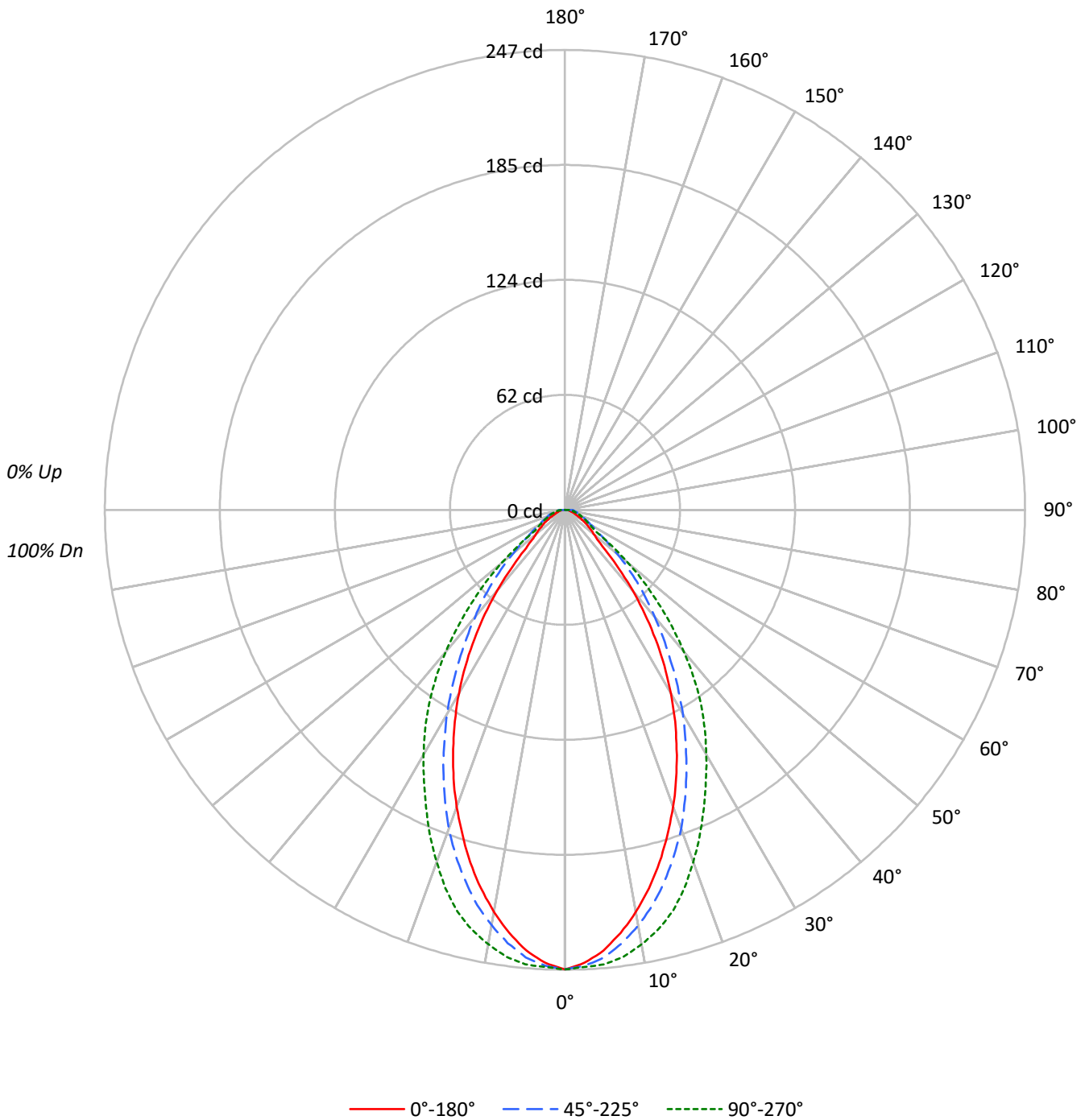
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 299.3 lumens  
Efficiency: N/A  
Efficacy: 25.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
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 (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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

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

	0°	45°	90°
0°	4554	4554	4554
5°	4401	4470	4538
10°	4109	4246	4439
15°	3748	3945	4266
20°	3334	3580	3953
25°	2889	3144	3592
30°	2423	2695	3234
35°	1908	2230	2868
40°	1361	1802	2394
45°	804	1425	1855
50°	580	1031	1263
55°	483	743	637
60°	391	594	543
65°	319	528	498
70°	275	513	475
75°	264	520	471
80°	276	627	510
85°	381	1016	614

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1855 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.6	7.6
10°-20°	58.2	19.4
20°-30°	71.7	24.0
30°-40°	63.8	21.3
40°-50°	40.7	13.6
50°-60°	19.6	6.5
60°-70°	11.5	3.8
70°-80°	7.3	2.5
80°-90°	3.9	1.3
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°	152.5	51.0
0°-40°	216.4	72.3
0°-60°	276.6	92.4
0°-90°	299.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	299.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	247	247	247	247	247	
5°	238	242	241	243	245	22
15°	196	201	206	216	223	55
25°	142	147	154	165	176	65
35°	85	91	99	114	127	53
45°	31	40	55	63	71	26
55°	15	19	23	22	20	14
65°	7	13	12	11	11	7
75°	4	8	7	7	7	4
85°	2	4	5	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	246.8	246.8	246.8	246.8	246.8
2.5°	243.5	247.5	245.0	245.0	245.7
5°	237.6	242.0	241.3	242.8	245.0
7.5°	229.2	234.0	234.7	238.7	242.0
10°	219.3	224.4	226.6	232.5	236.9
12.5°	208.3	213.4	217.5	224.8	231.0
15°	196.2	201.0	206.5	216.0	223.3
17.5°	183.0	189.2	194.7	204.6	213.1
20°	169.8	175.7	182.3	191.8	201.3
22.5°	156.2	161.7	168.3	178.2	189.2
25°	141.9	147.4	154.4	165.4	176.4
27.5°	128.0	133.5	140.1	152.2	163.9
30°	113.7	119.2	126.5	139.0	151.8
32.5°	99.4	105.3	112.6	126.2	139.7
35°	84.7	91.3	99.0	114.1	127.3
37.5°	70.4	77.0	86.5	101.2	113.7
40°	56.5	64.2	74.8	88.0	99.4
42.5°	42.9	51.3	64.5	75.2	85.1
45°	30.8	40.0	54.6	63.4	71.1
47.5°	23.5	30.1	45.1	52.1	57.6
50°	20.2	24.2	35.9	41.1	44.0
52.5°	17.6	21.3	28.6	31.2	31.2
55°	15.0	19.4	23.1	22.4	19.8
57.5°	12.8	17.6	19.1	16.1	16.9
60°	10.6	16.1	16.1	14.3	14.7
62.5°	8.8	15.0	13.9	12.5	12.8
65°	7.3	13.2	12.1	11.0	11.4
67.5°	5.9	11.7	10.6	9.9	9.9
70°	5.1	10.6	9.5	8.8	8.8
72.5°	4.4	9.2	8.4	7.7	7.7
75°	3.7	8.1	7.3	7.0	6.6
77.5°	3.3	7.0	6.6	5.9	5.5
80°	2.6	5.9	5.9	5.5	4.8
82.5°	2.2	5.1	5.1	4.8	4.0
85°	1.8	4.4	4.8	4.0	2.9
87.5°	1.5	4.0	4.0	3.3	2.2
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	6.93	8.21	7.30	8.52	8.84	6.72	8.00	7.09	8.31	8.62
	3H	8.16	9.30	8.54	9.63	9.99	8.32	9.45	8.70	9.78	10.15
	4H	8.62	9.68	9.02	10.03	10.42	9.03	10.09	9.44	10.44	10.83
	6H	9.01	9.98	9.42	10.35	10.74	9.69	10.66	10.11	11.04	11.43
	8H	9.16	10.08	9.59	10.47	10.88	10.02	10.94	10.45	11.33	11.74
	12H	9.31	10.20	9.75	10.58	11.01	10.31	11.19	10.74	11.58	12.01
4H	2H	7.48	8.54	7.89	8.89	9.28	7.31	8.37	7.72	8.72	9.11
	3H	9.18	10.05	9.59	10.45	10.85	9.15	10.02	9.57	10.43	10.83
	4H	9.98	10.76	10.41	11.18	11.62	10.03	10.81	10.47	11.23	11.68
	6H	10.63	11.31	11.09	11.75	12.22	10.88	11.56	11.34	12.00	12.47
	8H	10.88	11.51	11.35	11.96	12.43	11.30	11.94	11.77	12.39	12.86
	12H	11.12	11.68	11.61	12.16	12.64	11.70	12.26	12.19	12.74	13.22
8H	4H	10.40	11.03	10.87	11.48	11.95	10.45	11.08	10.92	11.53	12.00
	6H	11.38	11.90	11.88	12.40	12.88	11.54	12.06	12.04	12.56	13.04
	8H	11.87	12.34	12.39	12.85	13.34	12.13	12.60	12.66	13.12	13.61
	12H	12.37	12.78	12.88	13.27	13.85	12.73	13.14	13.24	13.63	14.21
12H	4H	10.46	11.02	10.95	11.51	11.98	10.53	11.09	11.01	11.57	12.04
	6H	11.55	12.02	12.07	12.53	13.02	11.70	12.17	12.23	12.69	13.18
	8H	12.18	12.59	12.70	13.09	13.66	12.42	12.83	12.93	13.32	13.90