

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: P1057892

Luminaire Tested: S122RDRP-S290D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057892  
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-S290D840-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

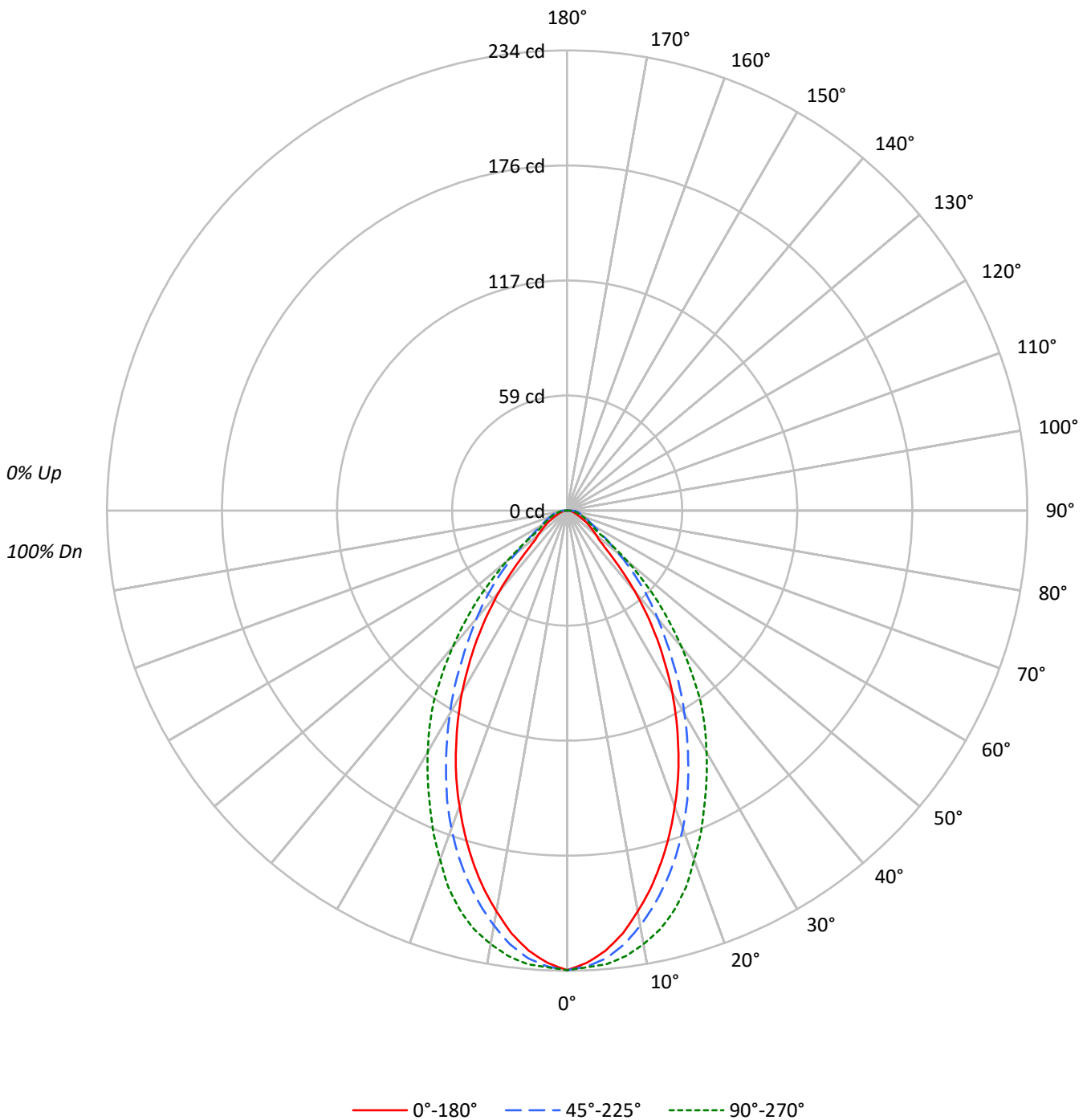
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 281.9 lumens  
Efficiency: N/A  
Efficacy: 22.6 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): 12.5  
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	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°	4312	4312	4312
5°	4160	4232	4288
10°	3877	4015	4193
15°	3534	3723	4019
20°	3142	3378	3707
25°	2722	2966	3361
30°	2278	2544	3021
35°	1798	2108	2660
40°	1289	1725	2180
45°	754	1362	1688
50°	545	990	1140
55°	457	708	595
60°	365	572	509
65°	301	506	472
70°	254	491	442
75°	242	520	428
80°	276	638	457
85°	466	995	635

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1688 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.4	7.6
10°-20°	54.9	19.5
20°-30°	67.4	23.9
30°-40°	59.6	21.1
40°-50°	38.1	13.5
50°-60°	18.6	6.6
60°-70°	11.1	3.9
70°-80°	7.1	2.5
80°-90°	3.9	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°	143.7	51.0
0°-40°	203.3	72.1
0°-60°	259.9	92.2
0°-90°	281.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	281.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	234	234	234	234	234	
5°	225	229	228	229	232	21
15°	185	190	195	204	210	52
25°	134	138	146	155	165	61
35°	80	84	94	106	118	50
45°	29	37	52	59	65	24
55°	14	19	22	21	18	13
65°	7	13	12	11	11	7
75°	3	8	7	6	6	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°	233.7	233.7	233.7	233.7	233.7
2.5°	230.2	234.5	232.0	232.0	232.4
5°	224.6	229.4	228.5	229.4	231.5
7.5°	216.9	221.6	222.5	225.9	228.5
10°	206.9	211.7	214.3	219.9	223.8
12.5°	196.6	201.3	205.2	212.6	218.2
15°	185.0	190.1	194.9	203.5	210.4
17.5°	172.9	178.1	184.1	192.7	200.9
20°	160.0	164.7	172.0	180.2	188.8
22.5°	147.4	151.8	159.5	167.3	177.6
25°	133.7	138.4	145.7	154.8	165.1
27.5°	120.3	125.0	132.4	142.7	153.5
30°	106.9	111.2	119.4	130.2	141.8
32.5°	93.1	97.4	106.5	118.1	130.2
35°	79.8	84.1	93.6	106.5	118.1
37.5°	66.4	71.1	81.9	94.0	103.9
40°	53.5	59.1	71.6	81.9	90.5
42.5°	40.5	48.3	61.7	70.3	77.2
45°	28.9	37.1	52.2	58.6	64.7
47.5°	22.0	28.5	43.1	47.9	51.7
50°	19.0	23.3	34.5	37.9	39.7
52.5°	16.4	20.7	27.6	28.9	28.0
55°	14.2	19.0	22.0	20.7	18.5
57.5°	12.1	17.7	18.1	15.5	16.0
60°	9.9	16.0	15.5	13.4	13.8
62.5°	8.2	14.7	13.4	12.1	12.1
65°	6.9	12.9	11.6	10.8	10.8
67.5°	5.6	11.6	10.3	9.5	9.5
70°	4.7	10.3	9.1	8.2	8.2
72.5°	4.3	9.1	8.2	7.3	7.3
75°	3.4	7.8	7.3	6.5	6.0
77.5°	3.0	6.5	6.5	6.0	5.2
80°	2.6	5.6	6.0	5.2	4.3
82.5°	2.6	5.2	5.2	4.7	3.4
85°	2.2	4.3	4.7	4.3	3.0
87.5°	1.3	3.9	3.9	3.4	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	7.12	8.39	7.48	8.71	9.02	6.63	7.91	6.99	8.22	8.53
	3H	8.28	9.42	8.66	9.75	10.11	8.20	9.33	8.58	9.66	10.03
	4H	8.71	9.77	9.11	10.12	10.50	8.87	9.94	9.28	10.29	10.67
	6H	9.05	10.03	9.47	10.40	10.80	9.52	10.50	9.94	10.87	11.27
	8H	9.25	10.18	9.68	10.57	10.97	9.81	10.73	10.24	11.12	11.53
	12H	9.48	10.36	9.91	10.74	11.18	10.12	11.00	10.55	11.39	11.82
4H	2H	7.61	8.67	8.02	9.02	9.41	7.22	8.29	7.63	8.64	9.02
	3H	9.25	10.13	9.66	10.53	10.93	9.03	9.90	9.44	10.31	10.71
	4H	10.02	10.80	10.45	11.22	11.67	9.87	10.66	10.31	11.08	11.52
	6H	10.62	11.30	11.08	11.75	12.21	10.73	11.41	11.19	11.85	12.32
	8H	10.92	11.56	11.39	12.01	12.48	11.11	11.75	11.58	12.19	12.67
	12H	11.24	11.81	11.73	12.29	12.76	11.54	12.11	12.03	12.59	13.06
8H	4H	10.44	11.07	10.91	11.52	11.99	10.33	10.97	10.80	11.41	11.88
	6H	11.39	11.91	11.89	12.40	12.89	11.44	11.96	11.94	12.46	12.94
	8H	11.94	12.41	12.46	12.92	13.41	12.01	12.48	12.53	12.99	13.49
	12H	12.51	12.92	13.02	13.42	13.99	12.67	13.09	13.19	13.58	14.15
12H	4H	10.51	11.07	10.99	11.55	12.03	10.41	10.98	10.90	11.46	11.93
	6H	11.57	12.04	12.09	12.55	13.05	11.62	12.09	12.14	12.61	13.10
	8H	12.27	12.68	12.78	13.18	13.75	12.33	12.74	12.84	13.24	13.81