

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: P1057889

Luminaire Tested: S122RDR-S290D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057889  
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: S122RDR-S290D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

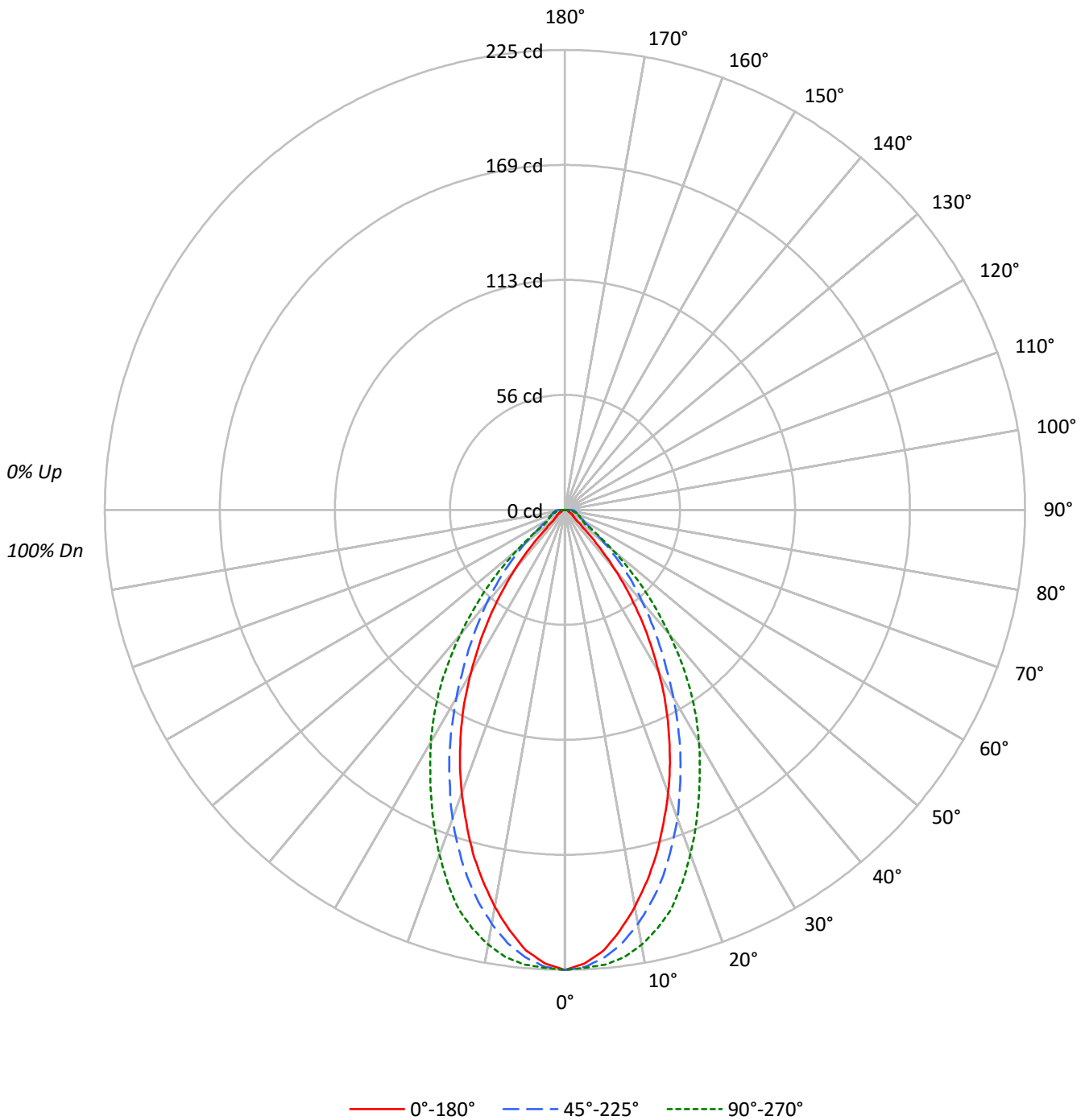
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 242.6 lumens  
Efficiency: N/A  
Efficacy: 19.4 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): 12.5  
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									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	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°	4154	4154	4154
5°	4010	4073	4138
10°	3693	3854	4047
15°	3320	3542	3855
20°	2896	3158	3523
25°	2449	2722	3152
30°	1956	2261	2793
35°	1446	1816	2399
40°	913	1424	1910
45°	360	1070	1407
50°	187	718	867
55°	151	473	389
60°	111	380	351
65°	96	358	358
70°	92	372	351
75°	121	428	371
80°	181	553	414
85°	275	910	550

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 1819 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.6	8.5
10°-20°	52.0	21.4
20°-30°	61.8	25.5
30°-40°	51.4	21.2
40°-50°	28.7	11.8
50°-60°	11.6	4.8
60°-70°	7.4	3.1
70°-80°	5.6	2.3
80°-90°	3.5	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°	134.4	55.4
0°-40°	185.8	76.6
0°-60°	226.1	93.2
0°-90°	242.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	242.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	225	225	225	225	225	
5°	216	220	220	222	223	20
15°	174	179	185	195	202	48
25°	120	125	134	144	155	55
35°	64	70	81	94	106	40
45°	14	23	41	48	54	13
55°	5	10	15	14	12	4
65°	2	9	8	8	8	2
75°	2	6	6	6	5	2
85°	1	4	4	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	225.1	225.1	225.1	225.1	225.1
2.5°	222.1	225.5	223.8	223.8	224.2
5°	216.5	220.3	219.9	221.6	223.4
7.5°	207.4	211.7	213.9	217.8	220.8
10°	197.1	201.8	205.7	211.7	216.0
12.5°	185.8	190.6	196.2	204.0	209.6
15°	173.8	178.9	185.4	194.9	201.8
17.5°	160.4	166.0	173.3	183.7	191.0
20°	147.5	153.1	160.8	171.2	179.4
22.5°	134.1	138.8	147.0	157.4	167.3
25°	120.3	125.0	133.7	144.0	154.8
27.5°	106.5	111.2	119.9	130.7	142.7
30°	91.8	97.0	106.1	118.1	131.1
32.5°	78.0	83.2	92.7	106.1	119.0
35°	64.2	70.3	80.6	94.0	106.5
37.5°	50.9	57.8	69.4	81.9	93.1
40°	37.9	45.3	59.1	69.9	79.3
42.5°	25.0	33.6	49.6	58.6	66.0
45°	13.8	23.3	41.0	47.9	53.9
47.5°	7.8	15.1	32.3	37.9	41.4
50°	6.5	11.2	25.0	28.9	30.2
52.5°	5.2	10.3	19.0	21.1	20.3
55°	4.7	9.9	14.7	14.2	12.1
57.5°	3.9	9.9	11.6	10.3	10.3
60°	3.0	9.5	10.3	9.1	9.5
62.5°	2.6	9.1	9.5	8.6	8.6
65°	2.2	8.6	8.2	7.8	8.2
67.5°	1.7	7.8	7.8	7.3	7.3
70°	1.7	7.3	6.9	6.5	6.5
72.5°	1.7	6.5	6.5	6.0	6.0
75°	1.7	6.0	6.0	5.6	5.2
77.5°	1.7	5.2	5.6	5.2	4.7
80°	1.7	4.7	5.2	4.7	3.9
82.5°	1.7	4.3	4.7	4.3	3.4
85°	1.3	3.9	4.3	3.9	2.6
87.5°	1.3	3.9	4.3	3.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)