

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: P1059023

Luminaire Tested: S123RDR-S1000D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059023  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1000D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

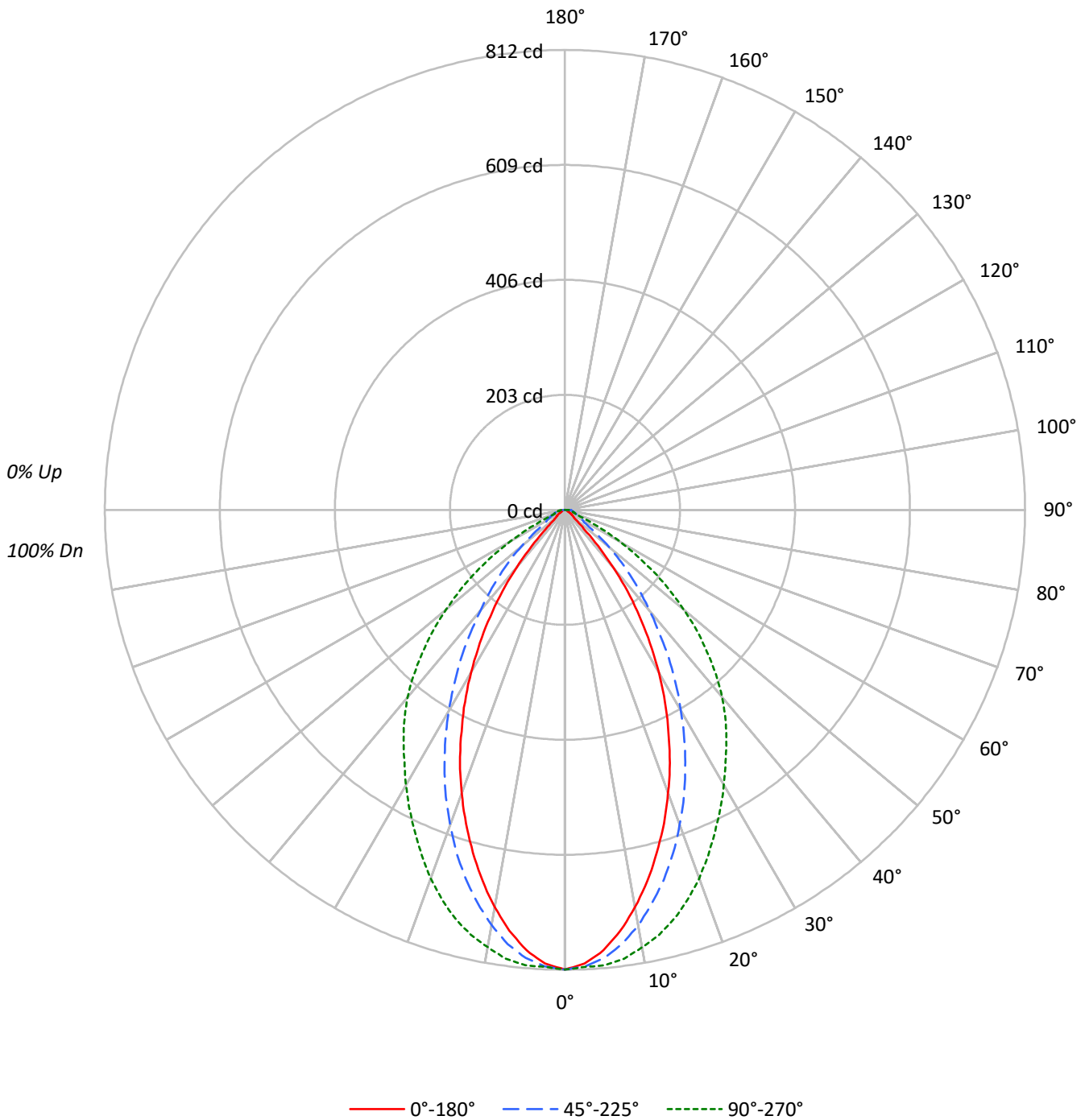
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 974.9 lumens  
Efficiency: N/A  
Efficacy: 27.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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	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	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	9530	9530	9530
5°	9201	9361	9509
10°	8493	8878	9352
15°	7619	8207	9082
20°	6653	7398	8654
25°	5596	6512	8120
30°	4492	5552	7605
35°	3291	4571	7116
40°	2036	3558	6620
45°	784	2679	5894
50°	385	1836	4987
55°	305	1015	3912
60°	204	845	2623
65°	172	759	1173
70°	172	683	683
75°	227	730	676
80°	338	926	757
85°	498	1509	997

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5894 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.4	7.6
10°-20°	190.5	19.5
20°-30°	236.4	24.3
30°-40°	211.8	21.7
40°-50°	139.3	14.3
50°-60°	69.8	7.2
60°-70°	27.5	2.8
70°-80°	15.4	1.6
80°-90°	9.7	1.0
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°	501.4	51.4
0°-40°	713.2	73.2
0°-60°	922.2	94.6
0°-90°	974.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	974.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	781	793	794	799	807	72
15°	627	647	675	721	747	175
25°	432	459	503	573	627	197
35°	230	261	319	417	496	142
45°	47	78	161	272	355	45
55°	15	17	50	134	191	13
65°	6	17	27	35	42	6
75°	5	16	16	15	15	5
85°	4	11	11	11	7	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	811.6	811.6	811.6	811.6	811.6
2.5°	801.7	812.9	806.7	806.7	807.9
5°	780.6	793.0	794.2	799.2	806.7
7.5°	749.6	765.7	773.1	788.0	799.2
10°	712.3	729.7	744.6	770.7	784.3
12.5°	671.4	688.8	711.1	747.1	768.2
15°	626.7	646.6	675.1	721.0	747.1
17.5°	580.8	600.6	635.4	687.5	721.0
20°	532.4	554.7	592.0	651.5	692.5
22.5°	484.0	508.8	548.5	613.1	660.2
25°	431.9	459.2	502.6	573.3	626.7
27.5°	382.2	410.8	456.7	533.6	594.4
30°	331.3	359.9	409.5	492.7	560.9
32.5°	279.2	311.5	363.6	454.2	527.4
35°	229.6	260.6	318.9	417.0	496.4
37.5°	181.2	212.2	273.0	381.0	465.4
40°	132.8	165.1	232.1	346.2	431.9
42.5°	86.9	120.4	196.1	311.5	394.6
45°	47.2	78.2	161.3	271.8	354.9
47.5°	26.1	42.2	130.3	234.6	316.5
50°	21.1	23.6	100.5	199.8	273.0
52.5°	17.4	19.9	72.0	166.3	233.3
55°	14.9	17.4	49.6	134.0	191.1
57.5°	12.4	14.9	39.7	103.0	150.2
60°	8.7	14.9	36.0	75.7	111.7
62.5°	7.4	14.9	31.0	52.1	74.5
65°	6.2	17.4	27.3	34.7	42.2
67.5°	5.0	17.4	23.6	22.3	22.3
70°	5.0	17.4	19.9	18.6	19.9
72.5°	5.0	18.6	18.6	17.4	17.4
75°	5.0	16.1	16.1	14.9	14.9
77.5°	5.0	14.9	14.9	13.7	13.7
80°	5.0	13.7	13.7	12.4	11.2
82.5°	5.0	12.4	12.4	11.2	9.9
85°	3.7	11.2	11.2	11.2	7.4
87.5°	3.7	9.9	11.2	9.9	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)