

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: P1059185

Luminaire Tested: S123RDR-S340D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059185  
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-S340D840-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: -

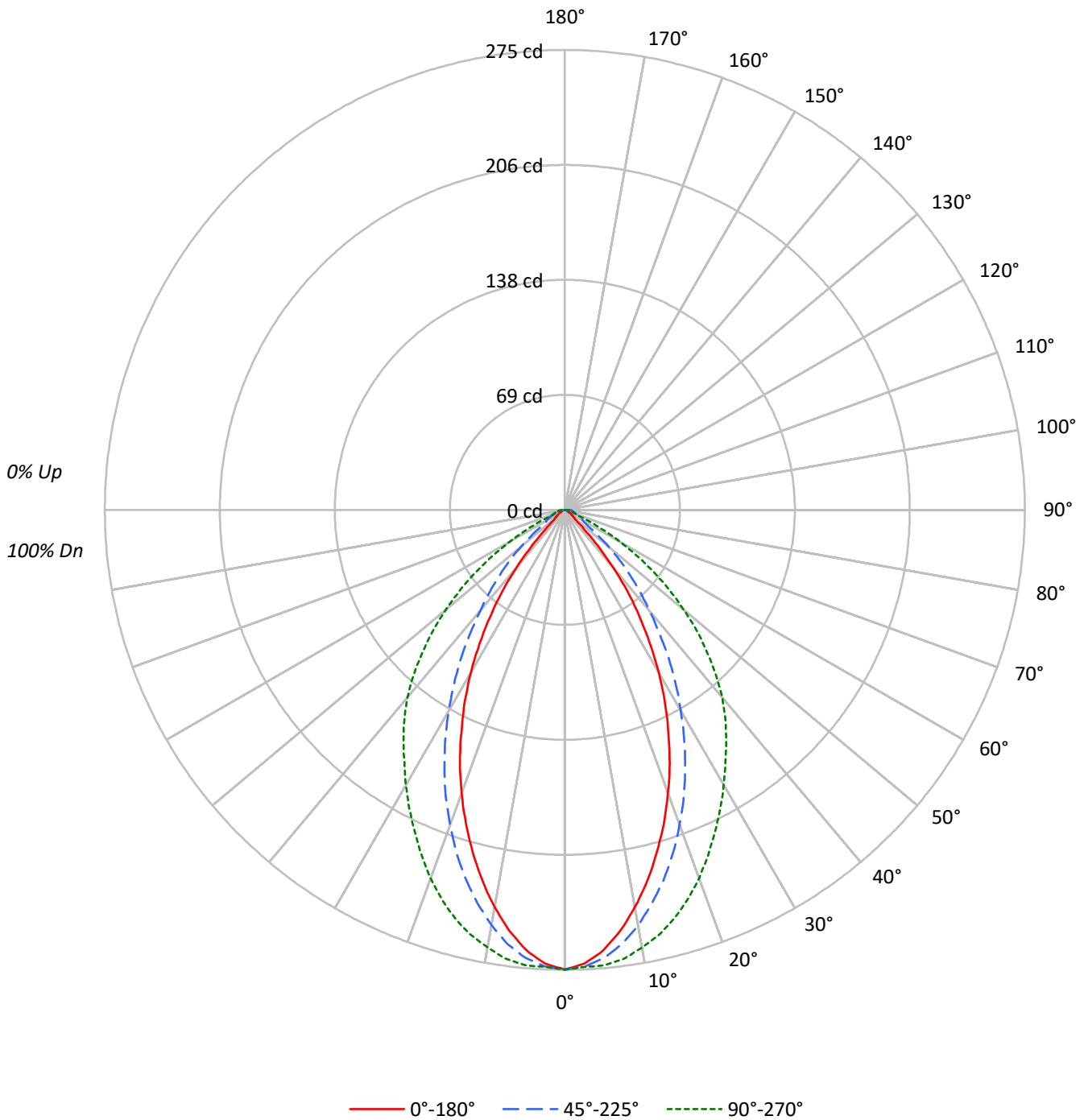
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 330.2 lumens  
Efficiency: N/A  
Efficacy: 26.4 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): 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	
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				
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°	3228	3228	3228
5°	3117	3171	3220
10°	2877	3007	3168
15°	2581	2780	3076
20°	2253	2505	2930
25°	1896	2205	2751
30°	1521	1881	2576
35°	1115	1548	2410
40°	690	1205	2243
45°	266	907	1996
50°	130	621	1690
55°	102	344	1325
60°	68	287	888
65°	58	256	397
70°	58	230	230
75°	77	250	227
80°	115	311	257
85°	175	512	337

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1996 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.2	7.6
10°-20°	64.5	19.5
20°-30°	80.1	24.3
30°-40°	71.7	21.7
40°-50°	47.2	14.3
50°-60°	23.6	7.2
60°-70°	9.3	2.8
70°-80°	5.2	1.6
80°-90°	3.3	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°	169.8	51.4
0°-40°	241.6	73.2
0°-60°	312.4	94.6
0°-90°	330.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	330.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	275	275	275	275	275	
5°	264	269	269	271	273	24
15°	212	219	229	244	253	59
25°	146	156	170	194	212	67
35°	78	88	108	141	168	48
45°	16	26	55	92	120	15
55°	5	6	17	45	65	4
65°	2	6	9	12	14	2
75°	2	6	6	5	5	2
85°	1	4	4	4	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	274.9	274.9	274.9	274.9	274.9
2.5°	271.5	275.3	273.2	273.2	273.6
5°	264.4	268.6	269.0	270.7	273.2
7.5°	253.9	259.3	261.9	266.9	270.7
10°	241.3	247.2	252.2	261.0	265.7
12.5°	227.4	233.3	240.9	253.0	260.2
15°	212.3	219.0	228.7	244.2	253.0
17.5°	196.7	203.4	215.2	232.9	244.2
20°	180.3	187.9	200.5	220.7	234.5
22.5°	163.9	172.3	185.8	207.6	223.6
25°	146.3	155.5	170.2	194.2	212.3
27.5°	129.5	139.1	154.7	180.7	201.3
30°	112.2	121.9	138.7	166.9	190.0
32.5°	94.6	105.5	123.2	153.8	178.6
35°	77.8	88.3	108.0	141.2	168.1
37.5°	61.4	71.9	92.5	129.0	157.6
40°	45.0	55.9	78.6	117.3	146.3
42.5°	29.4	40.8	66.4	105.5	133.7
45°	16.0	26.5	54.6	92.1	120.2
47.5°	8.8	14.3	44.1	79.4	107.2
50°	7.1	8.0	34.0	67.7	92.5
52.5°	5.9	6.7	24.4	56.3	79.0
55°	5.0	5.9	16.8	45.4	64.7
57.5°	4.2	5.0	13.5	34.9	50.9
60°	2.9	5.0	12.2	25.6	37.8
62.5°	2.5	5.0	10.5	17.7	25.2
65°	2.1	5.9	9.2	11.8	14.3
67.5°	1.7	5.9	8.0	7.6	7.6
70°	1.7	5.9	6.7	6.3	6.7
72.5°	1.7	6.3	6.3	5.9	5.9
75°	1.7	5.5	5.5	5.0	5.0
77.5°	1.7	5.0	5.0	4.6	4.6
80°	1.7	4.6	4.6	4.2	3.8
82.5°	1.7	4.2	4.2	3.8	3.4
85°	1.3	3.8	3.8	3.8	2.5
87.5°	1.3	3.4	3.8	3.4	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)