

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: P1059632

Luminaire Tested: S123RDR-H340D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059632  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H340D935-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

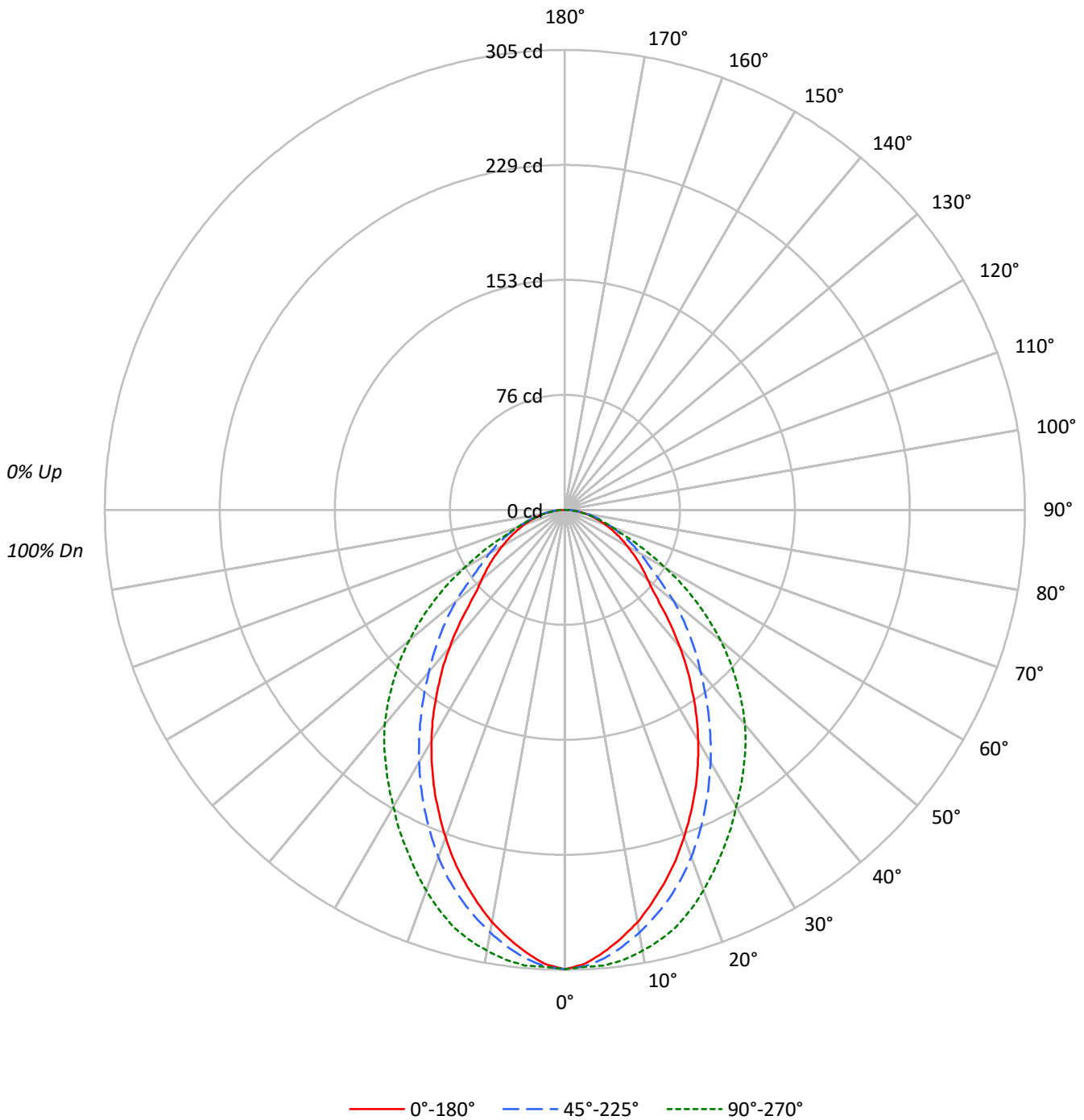
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 550.5 lumens  
Efficiency: N/A  
Efficacy: 47.1 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' 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										
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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	53	51																				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41																				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37																				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																				

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

	0°	45°	90°
0°	3578	3578	3578
5°	3474	3521	3575
10°	3310	3395	3540
15°	3110	3245	3479
20°	2888	3063	3358
25°	2652	2847	3217
30°	2397	2621	3081
35°	2114	2381	2966
40°	1818	2146	2848
45°	1495	1935	2670
50°	1312	1723	2461
55°	1214	1470	2180
60°	1116	1350	1804
65°	1042	1242	1420
70°	982	1130	1130
75°	926	1039	971
80°	872	940	818
85°	822	916	620

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2670 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.2	5.1
10°-20°	75.5	13.7
20°-30°	102.4	18.6
30°-40°	107.1	19.5
40°-50°	92.9	16.9
50°-60°	69.1	12.6
60°-70°	44.3	8.1
70°-80°	23.8	4.3
80°-90°	7.2	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°	206.1	37.4
0°-40°	313.2	56.9
0°-60°	475.2	86.3
0°-90°	550.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	550.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	305	305	305	305	305	
5°	295	300	299	301	303	28
15°	256	262	267	278	286	72
25°	205	211	220	234	248	94
35°	148	155	166	187	207	92
45°	90	97	116	142	161	71
55°	59	61	72	92	106	53
65°	38	41	45	48	51	37
75°	20	24	23	22	21	22
85°	6	8	7	6	5	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	304.7	304.7	304.7	304.7	304.7
2.5°	301.5	305.8	303.0	303.0	303.3
5°	294.7	299.7	298.7	300.8	303.3
7.5°	286.5	291.9	292.2	297.2	300.8
10°	277.6	282.9	284.7	291.9	296.9
12.5°	266.9	272.9	276.2	285.1	292.2
15°	255.8	261.9	266.9	277.6	286.2
17.5°	244.0	250.1	256.5	268.7	277.9
20°	231.1	237.6	245.1	257.2	268.7
22.5°	217.9	224.7	232.6	245.8	258.7
25°	204.7	211.1	219.7	234.4	248.3
27.5°	190.8	197.6	206.5	222.6	238.3
30°	176.8	183.6	193.3	210.4	227.2
32.5°	162.6	169.3	179.7	199.0	217.2
35°	147.5	154.7	166.1	187.2	206.9
37.5°	133.3	140.0	152.9	176.1	196.8
40°	118.6	125.8	140.0	165.1	185.8
42.5°	104.3	111.5	128.3	153.3	173.6
45°	90.0	96.8	116.5	141.5	160.8
47.5°	79.0	84.0	105.4	129.0	148.3
50°	71.8	73.6	94.3	116.8	134.7
52.5°	65.4	66.8	82.2	104.7	120.8
55°	59.3	60.7	71.8	92.2	106.5
57.5°	53.2	55.0	63.9	79.3	92.2
60°	47.5	49.7	57.5	67.9	76.8
62.5°	42.5	45.0	51.1	57.5	63.6
65°	37.5	40.7	44.7	47.5	51.1
67.5°	32.9	36.4	38.6	39.3	39.7
70°	28.6	32.2	32.9	32.9	32.9
72.5°	24.3	28.2	27.5	27.2	26.8
75°	20.4	23.6	22.9	21.8	21.4
77.5°	16.4	19.3	18.2	17.5	16.4
80°	12.9	15.0	13.9	13.2	12.1
82.5°	9.6	11.1	10.0	9.3	8.2
85°	6.1	7.5	6.8	5.7	4.6
87.5°	3.2	4.3	3.6	3.2	1.8
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	11.21	12.70	11.58	13.01	13.32	13.97	15.45	14.34	15.77	16.08
	3H	12.93	14.25	13.30	14.58	14.94	14.99	16.32	15.37	16.65	17.01
	4H	13.59	14.83	13.99	15.18	15.56	15.36	16.60	15.76	16.95	17.33
	6H	14.09	15.24	14.50	15.60	16.00	15.61	16.76	16.02	17.13	17.52
	8H	14.27	15.36	14.69	15.75	16.15	15.68	16.78	16.11	17.17	17.57
	12H	14.39	15.44	14.82	15.82	16.25	15.72	16.76	16.15	17.15	17.58
4H	2H	11.99	13.24	12.39	13.59	13.96	14.24	15.49	14.64	15.84	16.22
	3H	13.92	14.95	14.33	15.35	15.75	15.50	16.53	15.91	16.93	17.33
	4H	14.73	15.66	15.16	16.07	16.51	15.99	16.91	16.42	17.33	17.77
	6H	15.37	16.18	15.83	16.62	17.08	16.36	17.17	16.82	17.62	18.08
	8H	15.60	16.35	16.06	16.80	17.26	16.48	17.23	16.94	17.68	18.14
	12H	15.77	16.44	16.25	16.92	17.39	16.55	17.22	17.03	17.70	18.17
8H	4H	15.05	15.80	15.51	16.25	16.72	16.18	16.93	16.64	17.38	17.84
	6H	15.84	16.46	16.34	16.96	17.43	16.66	17.29	17.16	17.78	18.26
	8H	16.17	16.73	16.68	17.24	17.73	16.84	17.40	17.35	17.91	18.40
	12H	16.45	16.94	16.96	17.43	18.00	16.97	17.47	17.48	17.96	18.52
12H	4H	15.07	15.75	15.56	16.23	16.70	16.19	16.87	16.67	17.34	17.82
	6H	15.89	16.46	16.41	16.97	17.45	16.70	17.26	17.21	17.77	18.26
	8H	16.29	16.78	16.80	17.28	17.84	16.93	17.42	17.44	17.92	18.48