

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: P1059458

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H1000D930-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

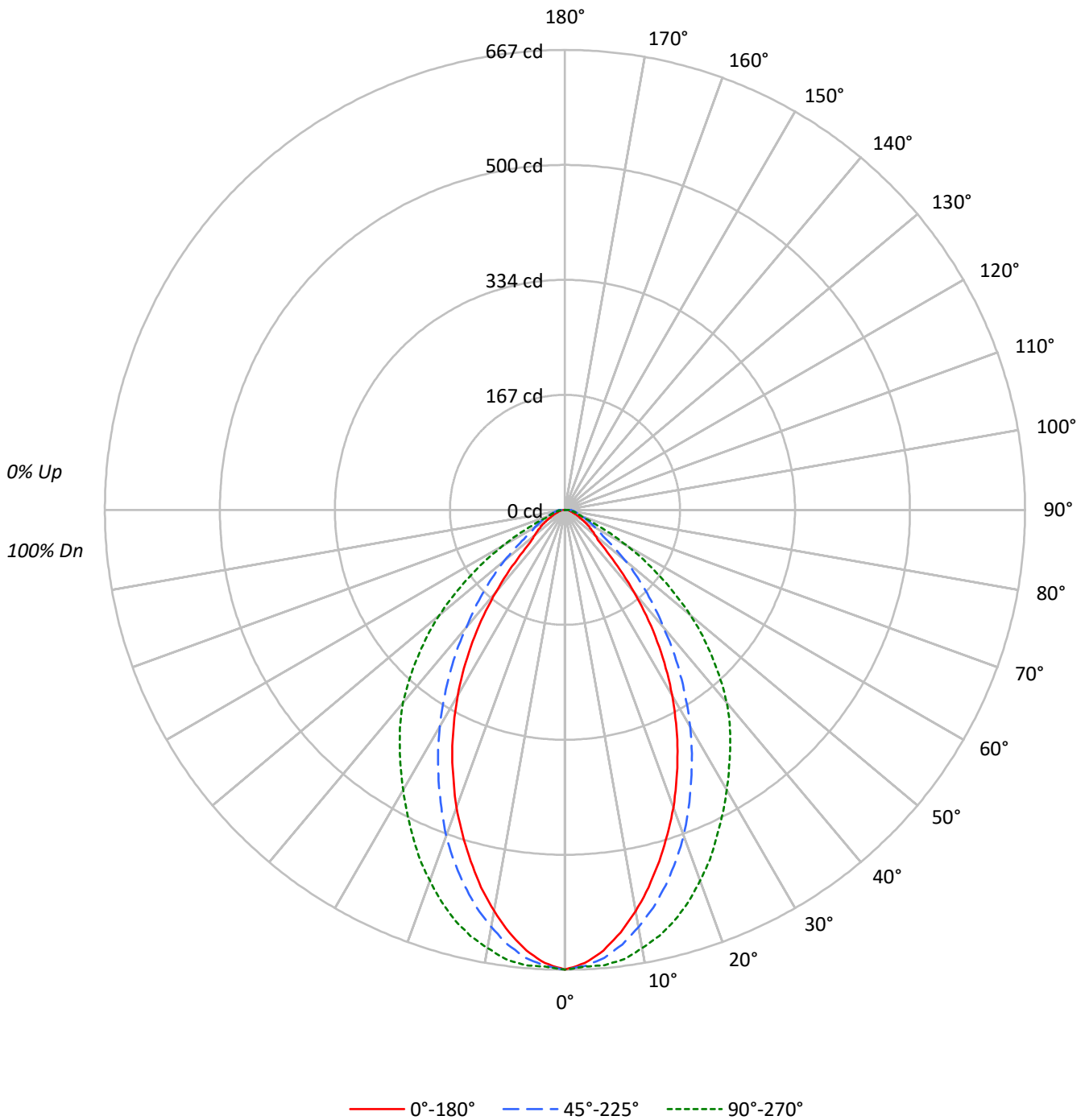
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 893.1 lumens  
Efficiency: N/A  
Efficacy: 28.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

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

	0°	45°	90°
0°	7830	7830	7830
5°	7562	7688	7814
10°	7046	7325	7695
15°	6414	6851	7491
20°	5742	6289	7153
25°	5008	5613	6761
30°	4210	4923	6362
35°	3349	4173	5986
40°	2388	3403	5596
45°	1423	2732	5012
50°	1049	2081	4339
55°	876	1415	3448
60°	709	1165	2424
65°	567	1000	1298
70°	467	869	803
75°	440	839	749
80°	460	920	724
85°	660	1307	916

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5012 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.3	6.9
10°-20°	159.1	17.8
20°-30°	203.0	22.7
30°-40°	191.0	21.4
40°-50°	137.2	15.4
50°-60°	78.7	8.8
60°-70°	36.0	4.0
70°-80°	18.1	2.0
80°-90°	8.8	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°	423.4	47.4
0°-40°	614.3	68.8
0°-60°	830.2	93.0
0°-90°	893.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	642	654	652	657	663	60
15°	528	546	564	594	616	147
25°	386	404	433	480	522	176
35°	234	250	291	357	418	145
45°	86	104	164	242	302	72
55°	43	44	69	128	168	38
65°	20	28	36	40	47	21
75°	10	20	18	16	16	11
85°	5	10	10	9	7	5
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	666.8	666.8	666.8	666.8	666.8
2.5°	658.1	667.8	662.0	662.0	662.9
5°	641.5	654.2	652.2	657.1	662.9
7.5°	618.2	631.8	635.7	647.4	657.1
10°	590.9	606.5	614.3	632.8	645.4
12.5°	560.7	578.2	590.9	614.3	632.8
15°	527.6	546.1	563.6	593.8	616.2
17.5°	493.6	512.0	534.4	569.5	595.8
20°	459.5	478.0	503.3	540.3	572.4
22.5°	422.5	441.0	468.2	510.1	549.0
25°	386.5	404.0	433.2	479.9	521.8
27.5°	348.5	366.0	398.2	448.8	495.5
30°	310.5	328.1	363.1	417.6	469.2
32.5°	272.6	289.1	327.1	387.4	442.9
35°	233.6	250.2	291.1	357.3	417.6
37.5°	193.7	210.3	258.0	330.0	392.3
40°	155.8	174.3	222.0	302.8	365.1
42.5°	118.8	138.2	192.7	273.5	333.9
45°	85.7	104.2	164.5	242.4	301.8
47.5°	65.2	75.0	139.2	211.2	270.6
50°	57.4	58.4	113.9	183.0	237.5
52.5°	49.6	50.6	88.6	155.8	202.5
55°	42.8	43.8	69.1	127.5	168.4
57.5°	36.0	38.0	56.5	101.2	135.3
60°	30.2	34.1	49.6	76.9	103.2
62.5°	24.3	31.2	42.8	56.5	74.0
65°	20.4	28.2	36.0	39.9	46.7
67.5°	16.5	26.3	30.2	28.2	28.2
70°	13.6	23.4	25.3	23.4	23.4
72.5°	11.7	22.4	21.4	19.5	19.5
75°	9.7	19.5	18.5	16.5	16.5
77.5°	8.8	16.5	15.6	14.6	13.6
80°	6.8	13.6	13.6	12.7	10.7
82.5°	5.8	11.7	11.7	10.7	8.8
85°	4.9	9.7	9.7	8.8	6.8
87.5°	3.9	8.8	8.8	7.8	4.9
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	7.14	8.46	7.50	8.77	9.09	14.36	15.67	14.72	15.99	16.30
	3H	8.54	9.71	8.92	10.04	10.40	14.59	15.76	14.97	16.09	16.46
	4H	9.10	10.19	9.50	10.54	10.92	14.70	15.79	15.10	16.14	16.52
	6H	9.56	10.56	9.97	10.93	11.32	14.81	15.81	15.22	16.18	16.57
	8H	9.74	10.69	10.17	11.08	11.49	14.85	15.80	15.28	16.19	16.60
	12H	9.93	10.84	10.37	11.22	11.65	14.91	15.81	15.34	16.20	16.63
4H	2H	8.21	9.30	8.61	9.65	10.03	14.32	15.41	14.72	15.76	16.14
	3H	9.90	10.79	10.31	11.20	11.60	14.69	15.58	15.10	15.98	16.39
	4H	10.73	11.53	11.17	11.95	12.39	14.87	15.67	15.30	16.09	16.53
	6H	11.39	12.08	11.85	12.53	12.99	15.09	15.78	15.55	16.23	16.69
	8H	11.64	12.29	12.11	12.74	13.21	15.19	15.84	15.66	16.28	16.76
	12H	11.90	12.47	12.39	12.95	13.43	15.31	15.88	15.80	16.36	16.84
8H	4H	11.17	11.81	11.64	12.26	12.73	14.91	15.56	15.38	16.01	16.48
	6H	12.12	12.65	12.62	13.14	13.62	15.25	15.78	15.75	16.27	16.75
	8H	12.58	13.06	13.10	13.57	14.07	15.44	15.91	15.96	16.43	16.92
	12H	13.06	13.48	13.57	13.98	14.55	15.67	16.09	16.19	16.59	17.16
12H	4H	11.23	11.80	11.71	12.28	12.76	14.91	15.48	15.39	15.96	16.43
	6H	12.27	12.74	12.79	13.26	13.75	15.27	15.75	15.79	16.27	16.76
	8H	12.86	13.28	13.37	13.77	14.35	15.53	15.96	16.05	16.45	17.02