

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059324

Luminaire Tested: S123RDRP-S560D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059324  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D950-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

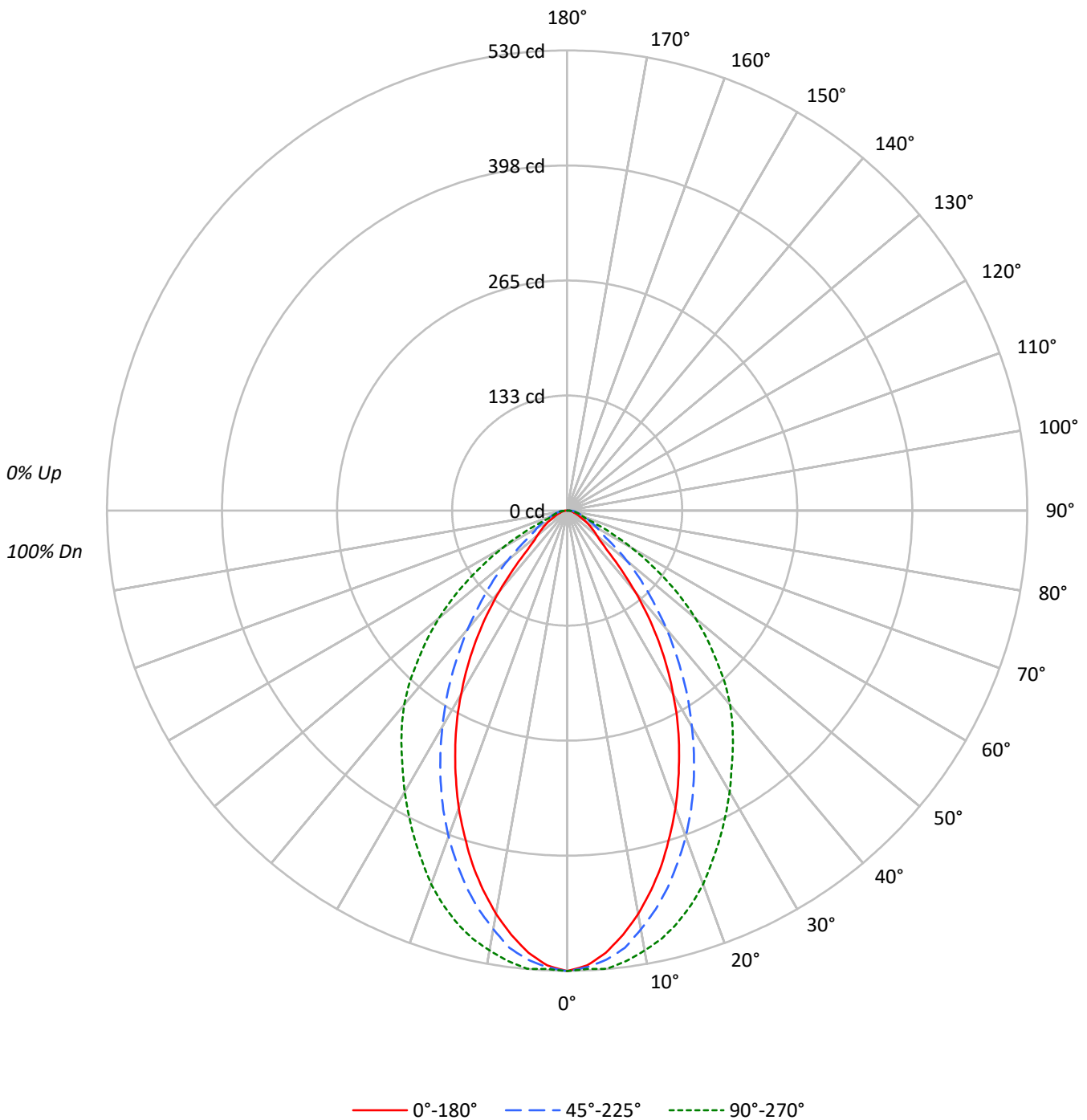
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 712.0 lumens  
Efficiency: N/A  
Efficacy: 36.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	6228	6228	6228
5°	6027	6120	6244
10°	5624	5837	6135
15°	5126	5455	5975
20°	4561	4990	5722
25°	3952	4465	5395
30°	3314	3895	5074
35°	2626	3316	4769
40°	1858	2727	4474
45°	1094	2155	4027
50°	818	1637	3526
55°	688	1106	2833
60°	557	944	2010
65°	439	806	1061
70°	385	700	656
75°	358	658	626
80°	358	710	622
85°	445	1064	795

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4027 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.8	6.9
10°-20°	126.9	17.8
20°-30°	161.6	22.7
30°-40°	152.0	21.3
40°-50°	109.5	15.4
50°-60°	63.2	8.9
60°-70°	28.9	4.1
70°-80°	14.4	2.0
80°-90°	6.8	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°	337.2	47.4
0°-40°	489.2	68.7
0°-60°	661.8	93.0
0°-90°	712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	712.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	530	530	530	530	530	
5°	511	520	519	524	530	48
15°	422	437	449	474	492	118
25°	305	321	345	383	416	140
35°	183	199	231	285	333	114
45°	66	82	130	195	242	56
55°	34	35	54	103	138	30
65°	16	22	29	32	38	16
75°	8	15	14	14	14	8
85°	3	7	8	7	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	530.4	530.4	530.4	530.4	530.4
2.5°	524.4	531.0	526.4	527.1	528.4
5°	511.3	519.8	519.2	524.4	529.7
7.5°	492.8	502.7	508.0	515.9	523.1
10°	471.7	482.9	489.5	504.0	514.5
12.5°	447.3	461.8	470.4	489.5	504.7
15°	421.7	436.8	448.7	473.7	491.5
17.5°	392.7	409.1	424.3	453.9	475.7
20°	365.0	380.8	399.3	431.5	457.9
22.5°	334.7	351.8	372.9	407.2	436.8
25°	305.0	320.9	344.6	382.8	416.4
27.5°	275.4	291.2	316.2	358.4	395.3
30°	244.4	260.9	287.3	334.0	374.2
32.5°	214.1	229.9	259.6	310.3	352.5
35°	183.2	199.0	231.3	284.6	332.7
37.5°	152.8	169.3	203.6	263.5	312.9
40°	121.2	139.0	177.9	241.8	291.9
42.5°	91.6	110.7	152.2	219.4	268.8
45°	65.9	82.4	129.8	195.0	242.5
47.5°	51.4	60.0	109.4	170.0	218.1
50°	44.8	46.1	89.6	146.9	193.0
52.5°	38.9	40.2	70.5	125.2	166.7
55°	33.6	34.9	54.0	102.8	138.4
57.5°	28.3	30.3	44.8	81.7	111.3
60°	23.7	26.4	40.2	62.6	85.6
62.5°	19.1	23.7	34.3	46.1	61.3
65°	15.8	22.4	29.0	32.3	38.2
67.5°	13.2	20.4	24.4	23.1	22.4
70°	11.2	18.4	20.4	18.4	19.1
72.5°	9.2	17.1	17.1	15.8	15.8
75°	7.9	15.2	14.5	13.8	13.8
77.5°	6.6	13.2	12.5	11.9	11.2
80°	5.3	10.5	10.5	9.9	9.2
82.5°	4.6	8.6	8.6	8.6	7.2
85°	3.3	7.2	7.9	7.2	5.9
87.5°	2.6	6.6	6.6	5.9	4.0
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	6.32	7.64	6.69	7.96	8.27	13.69	15.01	14.05	15.32	15.63
	3H	7.71	8.88	8.09	9.21	9.58	13.92	15.09	14.30	15.42	15.78
	4H	8.26	9.36	8.67	9.71	10.09	14.03	15.12	14.44	15.47	15.86
	6H	8.70	9.70	9.12	10.07	10.47	14.15	15.15	14.56	15.52	15.91
	8H	8.88	9.83	9.31	10.22	10.62	14.20	15.15	14.63	15.54	15.94
	12H	9.03	9.94	9.47	10.32	10.75	14.26	15.16	14.69	15.55	15.98
4H	2H	7.43	8.52	7.83	8.87	9.25	13.65	14.74	14.05	15.09	15.47
	3H	9.08	9.98	9.50	10.38	10.78	14.01	14.90	14.42	15.30	15.71
	4H	9.90	10.70	10.33	11.12	11.56	14.20	15.00	14.64	15.42	15.86
	6H	10.53	11.23	11.00	11.67	12.14	14.43	15.12	14.89	15.57	16.03
	8H	10.77	11.42	11.24	11.86	12.33	14.53	15.18	15.00	15.63	16.10
	12H	10.98	11.55	11.47	12.04	12.51	14.66	15.23	15.15	15.71	16.19
8H	4H	10.34	10.99	10.81	11.43	11.90	14.24	14.89	14.71	15.33	15.80
	6H	11.25	11.78	11.75	12.28	12.76	14.57	15.10	15.07	15.59	16.08
	8H	11.67	12.15	12.19	12.66	13.15	14.76	15.24	15.28	15.75	16.24
	12H	12.09	12.51	12.60	13.00	13.57	15.01	15.43	15.52	15.92	16.49
12H	4H	10.40	10.97	10.88	11.45	11.93	14.23	14.80	14.71	15.28	15.76
	6H	11.38	11.86	11.91	12.38	12.87	14.58	15.06	15.11	15.58	16.07
	8H	11.92	12.35	12.44	12.84	13.41	14.84	15.26	15.36	15.76	16.33