

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: P1059702

Luminaire Tested: S123RDRP-H560D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059702  
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-H560D930-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

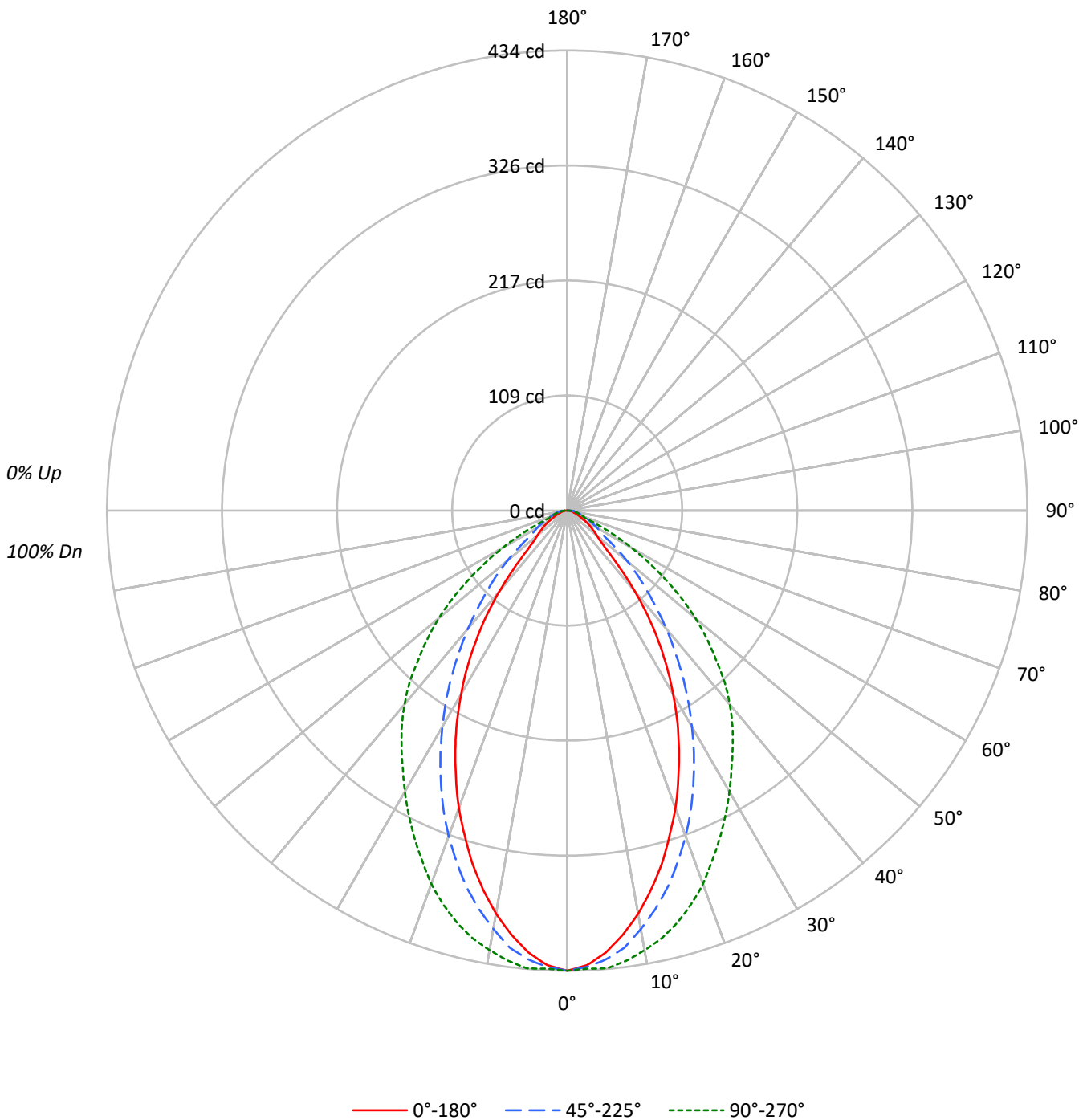
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 582.6 lumens  
Efficiency: N/A  
Efficacy: 33.5 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): 17.4  
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°	5096	5096	5096
5°	4932	5007	5109
10°	4603	4777	5020
15°	4194	4463	4889
20°	3733	4082	4682
25°	3234	3654	4414
30°	2712	3188	4152
35°	2149	2712	3903
40°	1521	2232	3660
45°	895	1764	3295
50°	670	1339	2886
55°	563	905	2317
60°	456	773	1646
65°	358	659	870
70°	316	573	536
75°	295	540	513
80°	291	582	507
85°	364	876	660

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3295 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.9	6.9
10°-20°	103.8	17.8
20°-30°	132.2	22.7
30°-40°	124.3	21.3
40°-50°	89.6	15.4
50°-60°	51.7	8.9
60°-70°	23.6	4.1
70°-80°	11.8	2.0
80°-90°	5.6	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°	275.9	47.4
0°-40°	400.3	68.7
0°-60°	541.6	93.0
0°-90°	582.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	582.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	434	434	434	434	434	
5°	418	425	425	429	433	39
15°	345	357	367	388	402	96
25°	250	262	282	313	341	114
35°	150	163	189	233	272	93
45°	54	67	106	160	198	46
55°	28	29	44	84	113	25
65°	13	18	24	26	31	13
75°	6	12	12	11	11	7
85°	3	6	6	6	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	434.0	434.0	434.0	434.0	434.0
2.5°	429.1	434.5	430.8	431.3	432.4
5°	418.4	425.4	424.8	429.1	433.4
7.5°	403.3	411.3	415.7	422.1	428.1
10°	386.0	395.2	400.6	412.4	421.0
12.5°	366.1	377.9	384.9	400.6	413.0
15°	345.0	357.4	367.1	387.6	402.2
17.5°	321.3	334.8	347.2	371.5	389.2
20°	298.7	311.6	326.7	353.1	374.7
22.5°	273.9	287.9	305.1	333.2	357.4
25°	249.6	262.5	282.0	313.2	340.7
27.5°	225.4	238.3	258.8	293.3	323.5
30°	200.0	213.5	235.1	273.3	306.2
32.5°	175.2	188.2	212.4	253.9	288.4
35°	149.9	162.8	189.2	232.9	272.3
37.5°	125.1	138.6	166.6	215.6	256.1
40°	99.2	113.8	145.6	197.9	238.8
42.5°	74.9	90.6	124.5	179.5	220.0
45°	53.9	67.4	106.2	159.6	198.4
47.5°	42.1	49.1	89.5	139.1	178.4
50°	36.7	37.7	73.3	120.2	158.0
52.5°	31.8	32.9	57.7	102.4	136.4
55°	27.5	28.6	44.2	84.1	113.2
57.5°	23.2	24.8	36.7	66.9	91.1
60°	19.4	21.6	32.9	51.2	70.1
62.5°	15.6	19.4	28.0	37.7	50.1
65°	12.9	18.3	23.7	26.4	31.3
67.5°	10.8	16.7	19.9	18.9	18.3
70°	9.2	15.1	16.7	15.1	15.6
72.5°	7.5	14.0	14.0	12.9	12.9
75°	6.5	12.4	11.9	11.3	11.3
77.5°	5.4	10.8	10.2	9.7	9.2
80°	4.3	8.6	8.6	8.1	7.5
82.5°	3.8	7.0	7.0	7.0	5.9
85°	2.7	5.9	6.5	5.9	4.9
87.5°	2.2	5.4	5.4	4.9	3.2
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	5.63	6.95	6.00	7.26	7.58	12.99	14.31	13.36	14.63	14.94
	3H	7.02	8.19	7.40	8.52	8.88	13.22	14.39	13.60	14.72	15.09
	4H	7.57	8.66	7.98	9.01	9.40	13.34	14.43	13.74	14.78	15.16
	6H	8.01	9.01	8.42	9.38	9.77	13.45	14.45	13.87	14.83	15.22
	8H	8.18	9.13	8.61	9.52	9.93	13.50	14.45	13.93	14.84	15.25
	12H	8.34	9.25	8.77	9.63	10.06	13.56	14.47	14.00	14.85	15.28
4H	2H	6.73	7.82	7.13	8.17	8.55	12.95	14.04	13.36	14.39	14.78
	3H	8.39	9.28	8.80	9.69	10.09	13.31	14.21	13.72	14.61	15.01
	4H	9.20	10.00	9.64	10.42	10.86	13.51	14.31	13.94	14.73	15.17
	6H	9.84	10.53	10.30	10.97	11.44	13.73	14.43	14.20	14.87	15.34
	8H	10.07	10.72	10.54	11.17	11.64	13.84	14.48	14.31	14.93	15.40
	12H	10.29	10.86	10.77	11.34	11.81	13.97	14.54	14.45	15.02	15.50
8H	4H	9.64	10.29	10.11	10.74	11.21	13.54	14.19	14.01	14.64	15.11
	6H	10.55	11.08	11.05	11.58	12.06	13.87	14.40	14.37	14.90	15.38
	8H	10.97	11.45	11.49	11.96	12.45	14.06	14.54	14.58	15.05	15.55
	12H	11.39	11.81	11.90	12.30	12.88	14.31	14.73	14.83	15.23	15.80
12H	4H	9.70	10.27	10.19	10.75	11.23	13.53	14.11	14.02	14.59	15.06
	6H	10.69	11.16	11.21	11.68	12.17	13.89	14.37	14.41	14.88	15.37
	8H	11.22	11.65	11.74	12.14	12.71	14.14	14.57	14.66	15.06	15.63