

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: P1059290

Luminaire Tested: S123RDRP-S560D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059290  
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: S123RDRP-S560D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

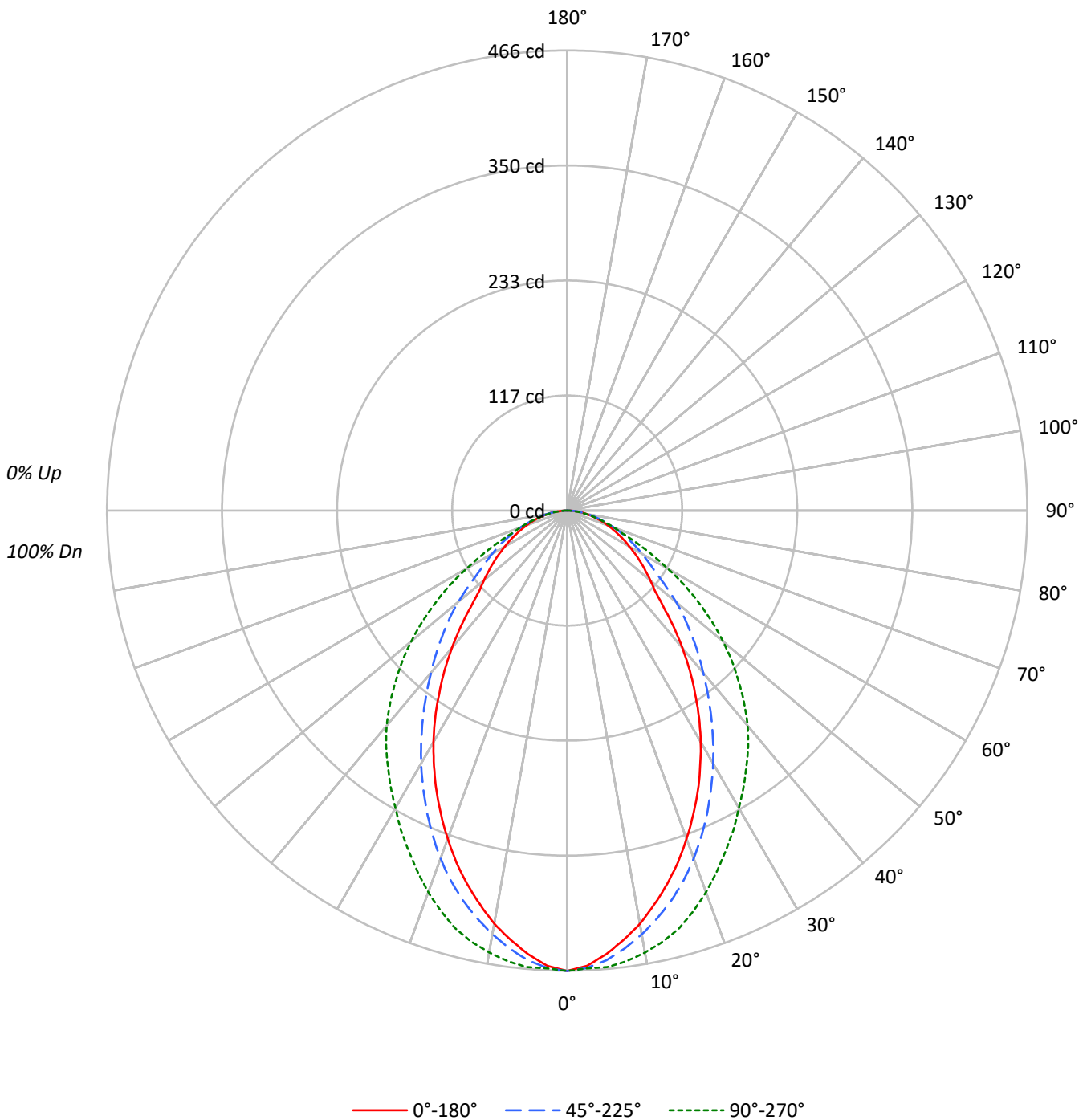
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 842.4 lumens  
Efficiency: N/A  
Efficacy: 43.0 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): 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	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	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	66	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°	5475	5475	5475
5°	5316	5387	5470
10°	5065	5195	5417
15°	4758	4965	5323
20°	4420	4686	5137
25°	4059	4356	4923
30°	3669	4011	4714
35°	3237	3644	4537
40°	2782	3285	4358
45°	2288	2959	4085
50°	2008	2636	3765
55°	1859	2250	3335
60°	1707	2067	2759
65°	1595	1898	2173
70°	1500	1727	1727
75°	1416	1588	1488
80°	1332	1440	1258
85°	1253	1401	957

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4085 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	5.1
10°-20°	115.6	13.7
20°-30°	156.7	18.6
30°-40°	163.9	19.5
40°-50°	142.1	16.9
50°-60°	105.7	12.6
60°-70°	67.8	8.1
70°-80°	36.4	4.3
80°-90°	11.0	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°	315.4	37.4
0°-40°	479.3	56.9
0°-60°	727.2	86.3
0°-90°	842.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	842.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	451	459	457	460	464	42
15°	391	401	408	425	438	110
25°	313	323	336	359	380	144
35°	226	237	254	286	316	141
45°	138	148	178	216	246	108
55°	91	93	110	141	163	81
65°	57	62	68	73	78	57
75°	31	36	35	33	33	33
85°	9	12	10	9	7	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	466.3	466.3	466.3	466.3	466.3
2.5°	461.4	468.0	463.6	463.6	464.1
5°	451.0	458.7	457.0	460.3	464.1
7.5°	438.4	446.6	447.2	454.8	460.3
10°	424.8	433.0	435.7	446.6	454.3
12.5°	408.4	417.7	422.6	436.3	447.2
15°	391.4	400.7	408.4	424.8	437.9
17.5°	373.4	382.7	392.5	411.1	425.3
20°	353.7	363.6	375.0	393.6	411.1
22.5°	333.5	343.9	355.9	376.1	395.8
25°	313.3	323.1	336.2	358.6	380.0
27.5°	291.9	302.3	316.0	340.6	364.6
30°	270.6	281.0	295.8	322.0	347.7
32.5°	248.7	259.1	275.0	304.5	332.4
35°	225.8	236.7	254.2	286.5	316.5
37.5°	203.9	214.3	234.0	269.5	301.2
40°	181.5	192.4	214.3	252.6	284.3
42.5°	159.6	170.6	196.3	234.5	265.7
45°	137.8	148.2	178.2	216.5	246.0
47.5°	120.8	128.5	161.3	197.4	226.9
50°	109.9	112.6	144.3	178.8	206.1
52.5°	100.0	102.2	125.7	160.2	184.8
55°	90.8	92.9	109.9	141.0	162.9
57.5°	81.5	84.2	97.9	121.4	141.0
60°	72.7	76.0	88.0	103.9	117.5
62.5°	65.1	68.9	78.2	88.0	97.3
65°	57.4	62.3	68.3	72.7	78.2
67.5°	50.3	55.8	59.0	60.1	60.7
70°	43.7	49.2	50.3	50.3	50.3
72.5°	37.2	43.2	42.1	41.5	41.0
75°	31.2	36.1	35.0	33.3	32.8
77.5°	25.1	29.5	27.9	26.8	25.1
80°	19.7	23.0	21.3	20.2	18.6
82.5°	14.8	16.9	15.3	14.2	12.6
85°	9.3	11.5	10.4	8.7	7.1
87.5°	4.9	6.6	5.5	4.9	2.7
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	12.69	14.18	13.06	14.49	14.81	15.45	16.93	15.82	17.25	17.56
	3H	14.40	15.73	14.78	16.06	16.42	16.47	17.80	16.85	18.13	18.49
	4H	15.07	16.31	15.47	16.66	17.04	16.84	18.08	17.24	18.43	18.81
	6H	15.57	16.72	15.98	17.08	17.47	17.09	18.24	17.50	18.61	19.00
	8H	15.74	16.84	16.17	17.23	17.63	17.16	18.26	17.59	18.65	19.05
	12H	15.87	16.92	16.30	17.30	17.73	17.20	18.24	17.63	18.63	19.06
4H	2H	13.47	14.71	13.87	15.06	15.44	15.72	16.97	16.12	17.32	17.70
	3H	15.40	16.43	15.81	16.83	17.23	16.98	18.01	17.39	18.41	18.81
	4H	16.21	17.14	16.64	17.55	17.99	17.46	18.39	17.89	18.81	19.25
	6H	16.85	17.65	17.30	18.10	18.56	17.84	18.65	18.30	19.09	19.55
	8H	17.07	17.83	17.54	18.27	18.74	17.95	18.71	18.42	19.15	19.62
	12H	17.25	17.92	17.73	18.40	18.87	18.02	18.70	18.51	19.18	19.65
8H	4H	16.53	17.28	16.99	17.73	18.19	17.65	18.41	18.12	18.85	19.32
	6H	17.32	17.94	17.82	18.43	18.91	18.14	18.76	18.64	19.26	19.73
	8H	17.65	18.21	18.16	18.72	19.20	18.32	18.88	18.83	19.39	19.88
	12H	17.92	18.42	18.43	18.91	19.48	18.45	18.94	18.96	19.44	20.00
12H	4H	16.55	17.22	17.03	17.70	18.17	17.67	18.34	18.15	18.82	19.29
	6H	17.37	17.93	17.89	18.44	18.93	18.18	18.74	18.69	19.25	19.74
	8H	17.77	18.26	18.28	18.75	19.32	18.41	18.90	18.92	19.39	19.96