

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: P1059689

Luminaire Tested: S123RDRP-H560D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059689  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H560D927-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

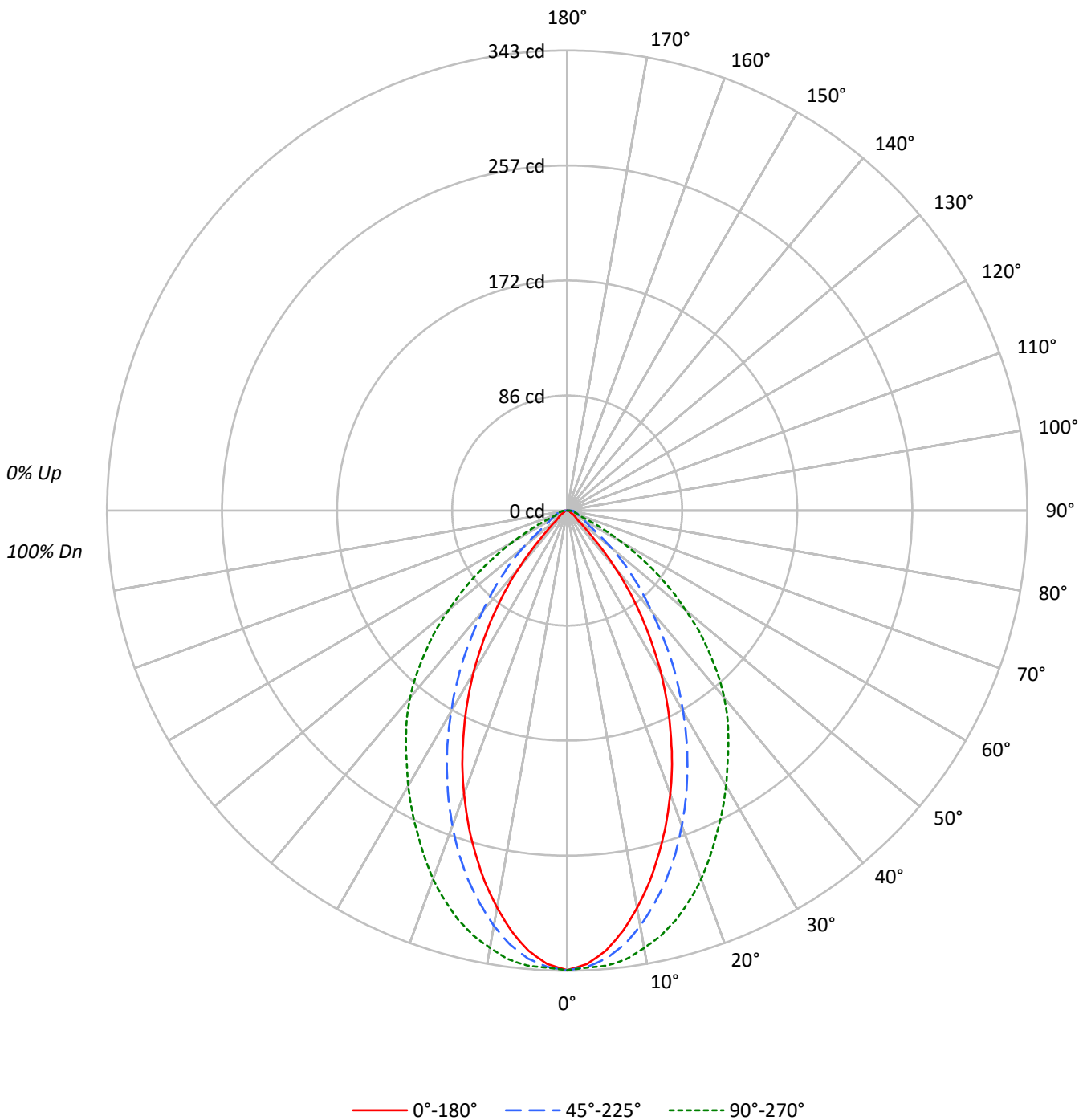
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 411.5 lumens  
Efficiency: N/A  
Efficacy: 23.7 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

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

	0°	45°	90°
0°	4023	4023	4023
5°	3884	3951	4014
10°	3585	3748	3947
15°	3215	3465	3833
20°	2808	3123	3653
25°	2362	2748	3427
30°	1897	2344	3211
35°	1389	1929	3003
40°	858	1502	2794
45°	330	1131	2488
50°	163	775	2104
55°	129	430	1652
60°	87	357	1106
65°	72	320	495
70°	72	288	288
75°	95	309	286
80°	142	392	318
85°	216	633	418

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2488 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.4	7.6
10°-20°	80.4	19.5
20°-30°	99.8	24.3
30°-40°	89.4	21.7
40°-50°	58.8	14.3
50°-60°	29.5	7.2
60°-70°	11.6	2.8
70°-80°	6.5	1.6
80°-90°	4.1	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°	211.6	51.4
0°-40°	301.0	73.2
0°-60°	389.3	94.6
0°-90°	411.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	411.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	343	343	343	343	343	
5°	330	335	335	337	340	31
15°	264	273	285	304	315	74
25°	182	194	212	242	264	83
35°	97	110	135	176	210	60
45°	20	33	68	115	150	19
55°	6	7	21	57	81	6
65°	3	7	12	15	18	3
75°	2	7	7	6	6	2
85°	2	5	5	5	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	342.6	342.6	342.6	342.6	342.6
2.5°	338.4	343.1	340.5	340.5	341.0
5°	329.5	334.7	335.2	337.3	340.5
7.5°	316.4	323.2	326.3	332.6	337.3
10°	300.7	308.0	314.3	325.3	331.0
12.5°	283.4	290.7	300.1	315.3	324.2
15°	264.5	272.9	285.0	304.3	315.3
17.5°	245.1	253.5	268.2	290.2	304.3
20°	224.7	234.1	249.9	275.0	292.3
22.5°	204.3	214.8	231.5	258.8	278.7
25°	182.3	193.8	212.1	242.0	264.5
27.5°	161.3	173.4	192.8	225.2	250.9
30°	139.9	151.9	172.9	208.0	236.8
32.5°	117.9	131.5	153.5	191.7	222.6
35°	96.9	110.0	134.6	176.0	209.5
37.5°	76.5	89.6	115.2	160.8	196.4
40°	56.0	69.7	98.0	146.1	182.3
42.5°	36.7	50.8	82.8	131.5	166.6
45°	19.9	33.0	68.1	114.7	149.8
47.5°	11.0	17.8	55.0	99.0	133.6
50°	8.9	10.0	42.4	84.3	115.2
52.5°	7.3	8.4	30.4	70.2	98.5
55°	6.3	7.3	21.0	56.6	80.7
57.5°	5.2	6.3	16.8	43.5	63.4
60°	3.7	6.3	15.2	32.0	47.1
62.5°	3.1	6.3	13.1	22.0	31.4
65°	2.6	7.3	11.5	14.7	17.8
67.5°	2.1	7.3	10.0	9.4	9.4
70°	2.1	7.3	8.4	7.9	8.4
72.5°	2.1	7.9	7.9	7.3	7.3
75°	2.1	6.8	6.8	6.3	6.3
77.5°	2.1	6.3	6.3	5.8	5.8
80°	2.1	5.8	5.8	5.2	4.7
82.5°	2.1	5.2	5.2	4.7	4.2
85°	1.6	4.7	4.7	4.7	3.1
87.5°	1.6	4.2	4.7	4.2	2.6
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	0.00	0.00	0.00	0.00	0.00	11.39	12.64	11.75	12.96	13.27
	3H	0.00	0.92	0.19	1.25	1.62	11.46	12.58	11.84	12.91	13.27
	4H	0.98	2.02	1.39	2.37	2.75	11.53	12.56	11.93	12.91	13.30
	6H	2.04	2.99	2.46	3.36	3.76	11.63	12.58	12.04	12.95	13.34
	8H	2.58	3.48	3.01	3.87	4.28	11.69	12.59	12.12	12.98	13.38
	12H	3.07	3.93	3.50	4.31	4.74	11.75	12.61	12.19	13.00	13.43
4H	2H	0.55	1.58	0.95	1.94	2.32	11.25	12.28	11.65	12.63	13.02
	3H	3.01	3.86	3.43	4.26	4.67	11.42	12.27	11.83	12.67	13.07
	4H	4.36	5.12	4.80	5.54	5.98	11.55	12.30	11.98	12.72	13.17
	6H	5.50	6.15	5.96	6.60	7.07	11.76	12.42	12.23	12.86	13.33
	8H	6.01	6.62	6.48	7.07	7.54	11.89	12.50	12.36	12.95	13.42
	12H	6.47	7.01	6.95	7.49	7.97	12.05	12.58	12.53	13.07	13.54
8H	4H	5.28	5.89	5.75	6.34	6.81	11.55	12.16	12.02	12.61	13.08
	6H	6.89	7.39	7.39	7.89	8.37	11.88	12.38	12.38	12.88	13.36
	8H	7.71	8.16	8.23	8.68	9.17	12.11	12.56	12.63	13.08	13.57
	12H	8.49	8.89	9.00	9.38	9.95	12.43	12.83	12.95	13.32	13.90
12H	4H	5.45	5.99	5.94	6.47	6.95	11.54	12.08	12.03	12.56	13.04
	6H	7.20	7.65	7.73	8.17	8.66	11.91	12.36	12.43	12.88	13.37
	8H	8.20	8.60	8.72	9.10	9.67	12.22	12.62	12.73	13.11	13.69