

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: P1059695

Luminaire Tested: S123RDR-H560D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059695  
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: S123RDR-H560D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

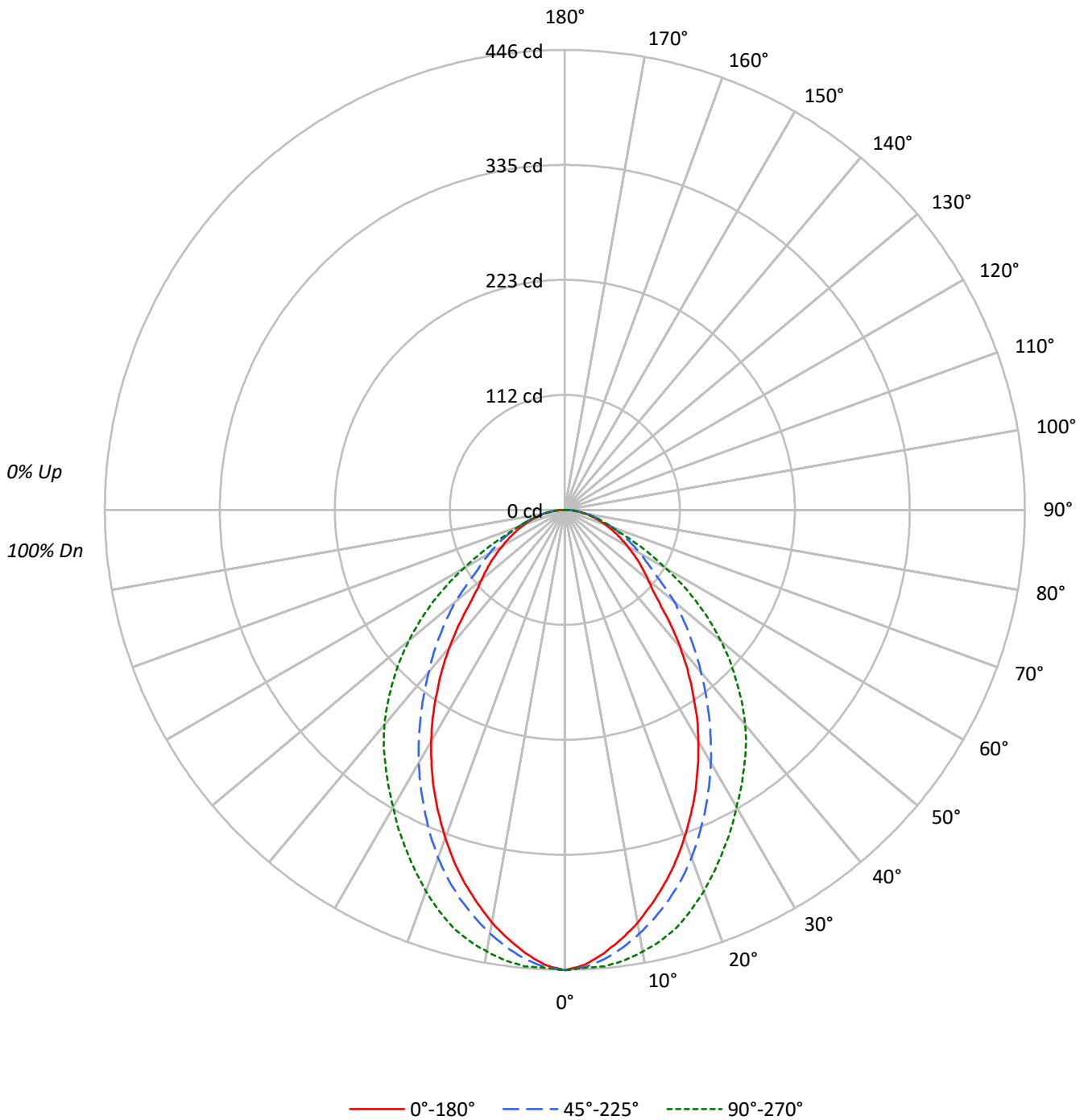
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 806.6 lumens  
Efficiency: N/A  
Efficacy: 46.4 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): 17.4  
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										
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																				
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	65	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°	5243	5243	5243
5°	5091	5158	5238
10°	4849	4975	5187
15°	4556	4753	5097
20°	4232	4487	4918
25°	3886	4171	4714
30°	3513	3840	4514
35°	3099	3489	4345
40°	2664	3145	4172
45°	2190	2833	3912
50°	1922	2525	3604
55°	1779	2154	3194
60°	1635	1980	2642
65°	1528	1817	2081
70°	1439	1655	1655
75°	1352	1520	1425
80°	1271	1379	1204
85°	1199	1334	916

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3912 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.3	5.1
10°-20°	110.7	13.7
20°-30°	150.1	18.6
30°-40°	156.9	19.5
40°-50°	136.1	16.9
50°-60°	101.2	12.6
60°-70°	65.0	8.1
70°-80°	34.8	4.3
80°-90°	10.5	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°	302.0	37.4
0°-40°	458.9	56.9
0°-60°	696.3	86.3
0°-90°	806.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	806.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	432	439	438	441	444	40
15°	375	384	391	407	419	105
25°	300	309	322	343	364	138
35°	216	227	243	274	303	135
45°	132	142	171	207	236	104
55°	87	89	105	135	156	78
65°	55	60	65	70	75	55
75°	30	34	34	32	31	32
85°	9	11	10	8	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	446.5	446.5	446.5	446.5	446.5
2.5°	441.8	448.1	443.9	443.9	444.4
5°	431.9	439.2	437.6	440.8	444.4
7.5°	419.8	427.7	428.2	435.5	440.8
10°	406.7	414.6	417.2	427.7	435.0
12.5°	391.0	399.9	404.6	417.7	428.2
15°	374.8	383.7	391.0	406.7	419.3
17.5°	357.5	366.4	375.8	393.6	407.2
20°	338.7	348.1	359.1	376.9	393.6
22.5°	319.3	329.3	340.8	360.1	379.0
25°	299.9	309.4	321.9	343.4	363.8
27.5°	279.5	289.5	302.6	326.1	349.1
30°	259.1	269.1	283.2	308.3	332.9
32.5°	238.2	248.1	263.3	291.6	318.3
35°	216.2	226.7	243.4	274.3	303.1
37.5°	195.2	205.2	224.0	258.1	288.4
40°	173.8	184.3	205.2	241.8	272.2
42.5°	152.8	163.3	187.9	224.6	254.4
45°	131.9	141.9	170.6	207.3	235.6
47.5°	115.7	123.0	154.4	189.0	217.2
50°	105.2	107.8	138.2	171.2	197.3
52.5°	95.8	97.9	120.4	153.4	176.9
55°	86.9	89.0	105.2	135.1	156.0
57.5°	78.0	80.6	93.7	116.2	135.1
60°	69.6	72.8	84.3	99.5	112.5
62.5°	62.3	66.0	74.9	84.3	93.2
65°	55.0	59.7	65.4	69.6	74.9
67.5°	48.2	53.4	56.5	57.6	58.1
70°	41.9	47.1	48.2	48.2	48.2
72.5°	35.6	41.4	40.3	39.8	39.3
75°	29.8	34.5	33.5	31.9	31.4
77.5°	24.1	28.3	26.7	25.6	24.1
80°	18.8	22.0	20.4	19.4	17.8
82.5°	14.1	16.2	14.7	13.6	12.0
85°	8.9	11.0	9.9	8.4	6.8
87.5°	4.7	6.3	5.2	4.7	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	12.54	14.02	12.91	14.34	14.65	15.30	16.78	15.66	17.10	17.41
	3H	14.25	15.58	14.63	15.91	16.27	16.32	17.65	16.70	17.98	18.34
	4H	14.91	16.16	15.31	16.51	16.89	16.69	17.93	17.09	18.28	18.66
	6H	15.41	16.56	15.83	16.93	17.32	16.94	18.09	17.35	18.46	18.85
	8H	15.59	16.69	16.02	17.08	17.48	17.01	18.11	17.44	18.49	18.90
	12H	15.72	16.77	16.15	17.15	17.58	17.05	18.09	17.48	18.48	18.90
4H	2H	13.32	14.56	13.72	14.91	15.29	15.57	16.82	15.97	17.16	17.54
	3H	15.24	16.28	15.66	16.68	17.08	16.83	17.86	17.24	18.26	18.66
	4H	16.05	16.98	16.49	17.40	17.84	17.31	18.24	17.74	18.66	19.10
	6H	16.69	17.50	17.15	17.95	18.41	17.69	18.50	18.15	18.94	19.40
	8H	16.92	17.68	17.39	18.12	18.59	17.80	18.56	18.27	19.00	19.47
	12H	17.09	17.77	17.58	18.25	18.72	17.87	18.55	18.36	19.03	19.50
8H	4H	16.37	17.13	16.84	17.57	18.04	17.50	18.26	17.97	18.70	19.17
	6H	17.17	17.79	17.66	18.28	18.76	17.99	18.61	18.49	19.11	19.58
	8H	17.49	18.05	18.01	18.56	19.05	18.17	18.73	18.68	19.24	19.73
	12H	17.77	18.27	18.28	18.76	19.32	18.30	18.79	18.81	19.29	19.85
12H	4H	16.40	17.07	16.88	17.55	18.02	17.52	18.19	18.00	18.67	19.14
	6H	17.22	17.78	17.74	18.29	18.78	18.03	18.59	18.54	19.10	19.59
	8H	17.61	18.11	18.12	18.60	19.17	18.26	18.75	18.77	19.25	19.81