

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: P1059266

Luminaire Tested: S123RDR-S560D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059266  
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: S123RDR-S560D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

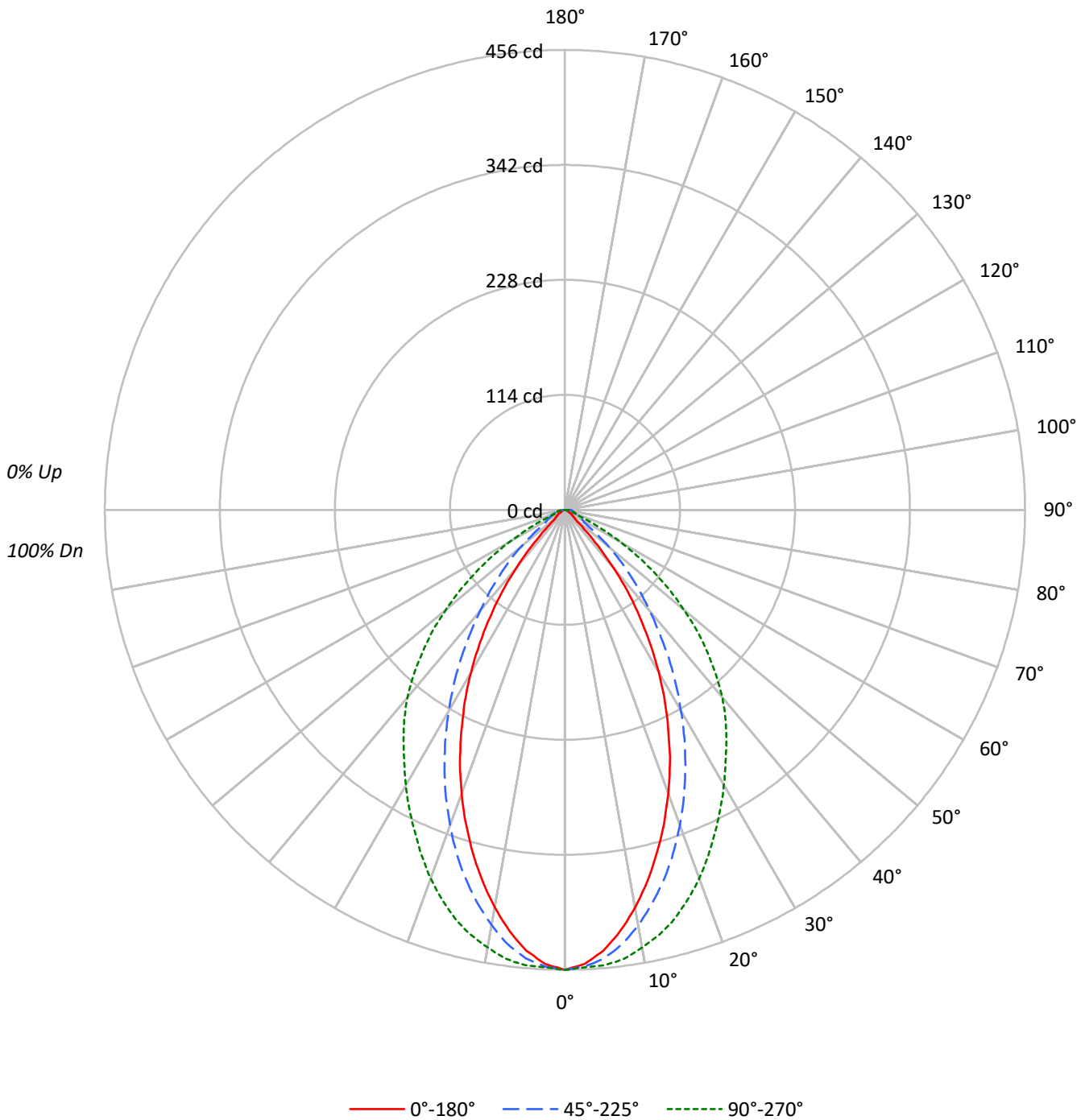
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 547.9 lumens  
Efficiency: N/A  
Efficacy: 28.0 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): 19.6  
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				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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	5356	5356	5356
5°	5171	5261	5343
10°	4773	4989	5255
15°	4282	4612	5103
20°	3739	4157	4862
25°	3145	3659	4563
30°	2525	3120	4274
35°	1849	2569	3999
40°	1144	1999	3720
45°	440	1506	3313
50°	217	1032	2802
55°	172	571	2199
60°	115	474	1475
65°	97	425	659
70°	96	385	385
75°	127	413	381
80°	189	521	426
85°	283	849	566

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3313 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.8	7.6
10°-20°	107.1	19.5
20°-30°	132.9	24.2
30°-40°	119.0	21.7
40°-50°	78.2	14.3
50°-60°	39.2	7.2
60°-70°	15.5	2.8
70°-80°	8.7	1.6
80°-90°	5.5	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°	281.7	51.4
0°-40°	400.8	73.1
0°-60°	518.2	94.6
0°-90°	547.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	547.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	439	446	446	449	453	41
15°	352	363	379	405	420	98
25°	243	258	282	322	352	111
35°	129	146	179	234	279	80
45°	26	44	91	153	200	25
55°	8	10	28	75	107	7
65°	4	10	15	20	24	4
75°	3	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	456.1	456.1	456.1	456.1	456.1
2.5°	450.5	456.8	453.3	453.3	454.0
5°	438.7	445.6	446.3	449.1	453.3
7.5°	421.2	430.3	434.5	442.8	449.1
10°	400.3	410.1	418.4	433.1	440.7
12.5°	377.3	387.0	399.6	419.8	431.7
15°	352.2	363.3	379.4	405.2	419.8
17.5°	326.4	337.5	357.1	386.4	405.2
20°	299.2	311.7	332.7	366.1	389.1
22.5°	272.0	285.9	308.2	344.5	371.0
25°	242.7	258.0	282.4	322.2	352.2
27.5°	214.8	230.8	256.6	299.9	334.0
30°	186.2	202.2	230.1	276.9	315.2
32.5°	156.9	175.0	204.3	255.2	296.4
35°	129.0	146.5	179.2	234.3	279.0
37.5°	101.8	119.3	153.4	214.1	261.5
40°	74.6	92.8	130.4	194.6	242.7
42.5°	48.8	67.6	110.2	175.0	221.8
45°	26.5	43.9	90.7	152.7	199.5
47.5°	14.6	23.7	73.2	131.8	177.8
50°	11.9	13.3	56.5	112.3	153.4
52.5°	9.8	11.2	40.4	93.4	131.1
55°	8.4	9.8	27.9	75.3	107.4
57.5°	7.0	8.4	22.3	57.9	84.4
60°	4.9	8.4	20.2	42.5	62.8
62.5°	4.2	8.4	17.4	29.3	41.8
65°	3.5	9.8	15.3	19.5	23.7
67.5°	2.8	9.8	13.3	12.6	12.6
70°	2.8	9.8	11.2	10.5	11.2
72.5°	2.8	10.5	10.5	9.8	9.8
75°	2.8	9.1	9.1	8.4	8.4
77.5°	2.8	8.4	8.4	7.7	7.7
80°	2.8	7.7	7.7	7.0	6.3
82.5°	2.8	7.0	7.0	6.3	5.6
85°	2.1	6.3	6.3	6.3	4.2
87.5°	2.1	5.6	6.3	5.6	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)