

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: P1059317

Luminaire Tested: S123RDR-S560D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059317  
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-S560D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

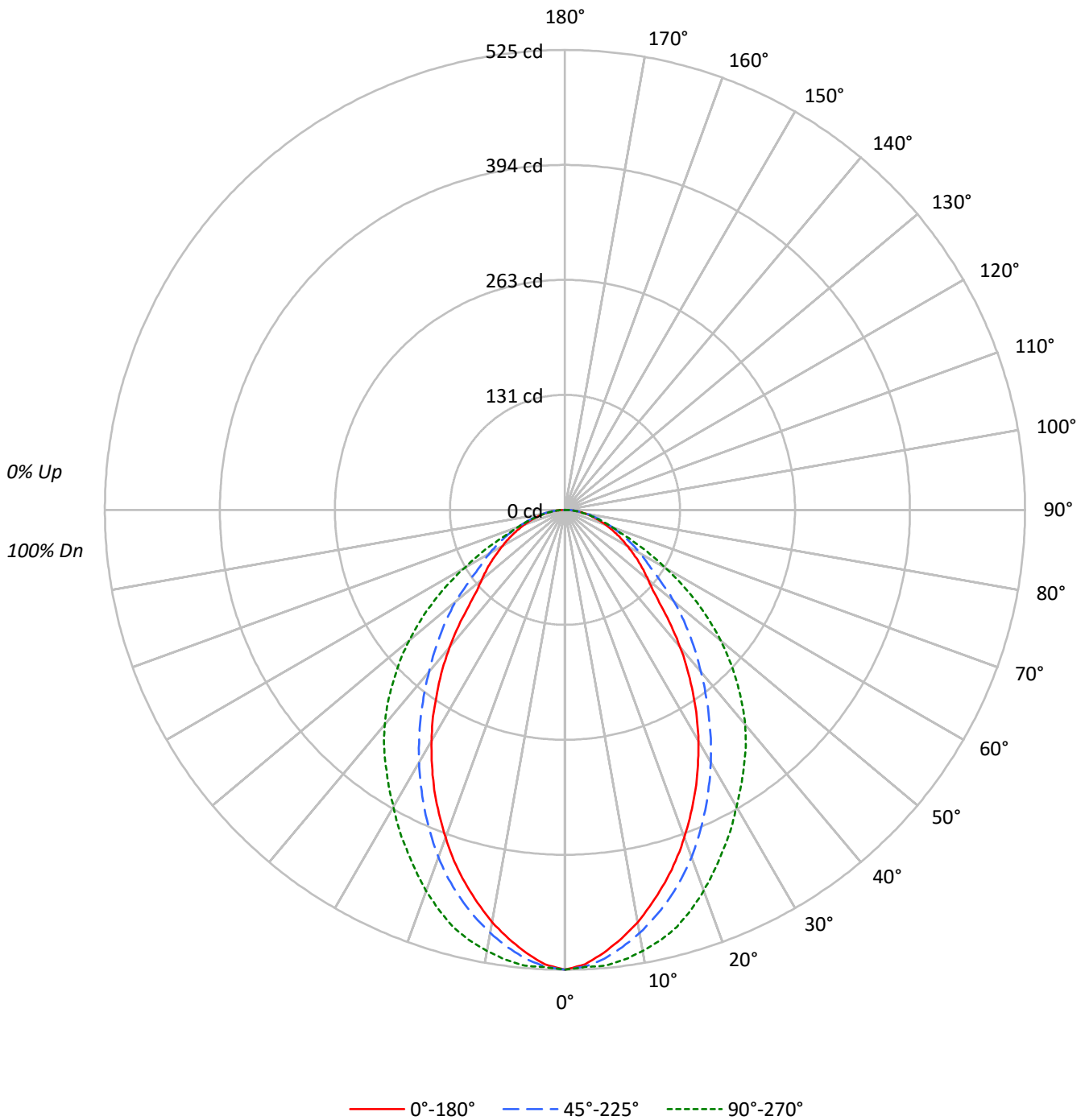
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 948.2 lumens  
Efficiency: N/A  
Efficacy: 48.4 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): 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	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	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°	6164	6164	6164
5°	5984	6065	6159
10°	5701	5849	6098
15°	5356	5588	5992
20°	4975	5275	5783
25°	4568	4904	5541
30°	4130	4514	5307
35°	3644	4103	5108
40°	3132	3697	4905
45°	2576	3331	4598
50°	2260	2969	4238
55°	2092	2532	3755
60°	1921	2327	3107
65°	1795	2137	2445
70°	1689	1943	1943
75°	1592	1788	1674
80°	1501	1623	1413
85°	1415	1576	1078

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4598 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.5	5.1
10°-20°	130.1	13.7
20°-30°	176.4	18.6
30°-40°	184.5	19.5
40°-50°	160.0	16.9
50°-60°	119.0	12.6
60°-70°	76.4	8.1
70°-80°	41.0	4.3
80°-90°	12.4	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°	355.1	37.4
0°-40°	539.5	56.9
0°-60°	818.5	86.3
0°-90°	948.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	948.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	508	516	514	518	522	48
15°	441	451	460	478	493	123
25°	353	364	378	404	428	162
35°	254	266	286	322	356	159
45°	155	167	201	244	277	122
55°	102	105	124	159	183	91
65°	65	70	77	82	88	64
75°	35	41	39	38	37	37
85°	10	13	12	10	8	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	524.9	524.9	524.9	524.9	524.9
2.5°	519.4	526.8	521.8	521.8	522.5
5°	507.7	516.3	514.5	518.1	522.5
7.5°	493.5	502.8	503.4	512.0	518.1
10°	478.1	487.4	490.5	502.8	511.4
12.5°	459.7	470.1	475.7	491.1	503.4
15°	440.6	451.1	459.7	478.1	492.9
17.5°	420.3	430.8	441.8	462.8	478.8
20°	398.1	409.2	422.1	443.1	462.8
22.5°	375.4	387.1	400.6	423.4	445.5
25°	352.6	363.7	378.5	403.7	427.7
27.5°	328.6	340.3	355.7	383.4	410.5
30°	304.6	316.3	332.9	362.5	391.4
32.5°	280.0	291.7	309.5	342.8	374.1
35°	254.2	266.5	286.2	322.5	356.3
37.5°	229.5	241.2	263.4	303.4	339.1
40°	204.3	216.6	241.2	284.3	320.0
42.5°	179.7	192.0	220.9	264.0	299.1
45°	155.1	166.8	200.6	243.7	276.9
47.5°	136.0	144.6	181.5	222.2	255.4
50°	123.7	126.8	162.5	201.2	232.0
52.5°	112.6	115.1	141.5	180.3	208.0
55°	102.2	104.6	123.7	158.8	183.4
57.5°	91.7	94.8	110.2	136.6	158.8
60°	81.8	85.5	99.1	116.9	132.3
62.5°	73.2	77.5	88.0	99.1	109.5
65°	64.6	70.2	76.9	81.8	88.0
67.5°	56.6	62.8	66.5	67.7	68.3
70°	49.2	55.4	56.6	56.6	56.6
72.5°	41.8	48.6	47.4	46.8	46.2
75°	35.1	40.6	39.4	37.5	36.9
77.5°	28.3	33.2	31.4	30.2	28.3
80°	22.2	25.8	24.0	22.8	20.9
82.5°	16.6	19.1	17.2	16.0	14.2
85°	10.5	12.9	11.7	9.8	8.0
87.5°	5.5	7.4	6.2	5.5	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)