

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: P1059311

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059311  
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-S560D940-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, 90 CRI LEDS  
Ballast/Driver: -

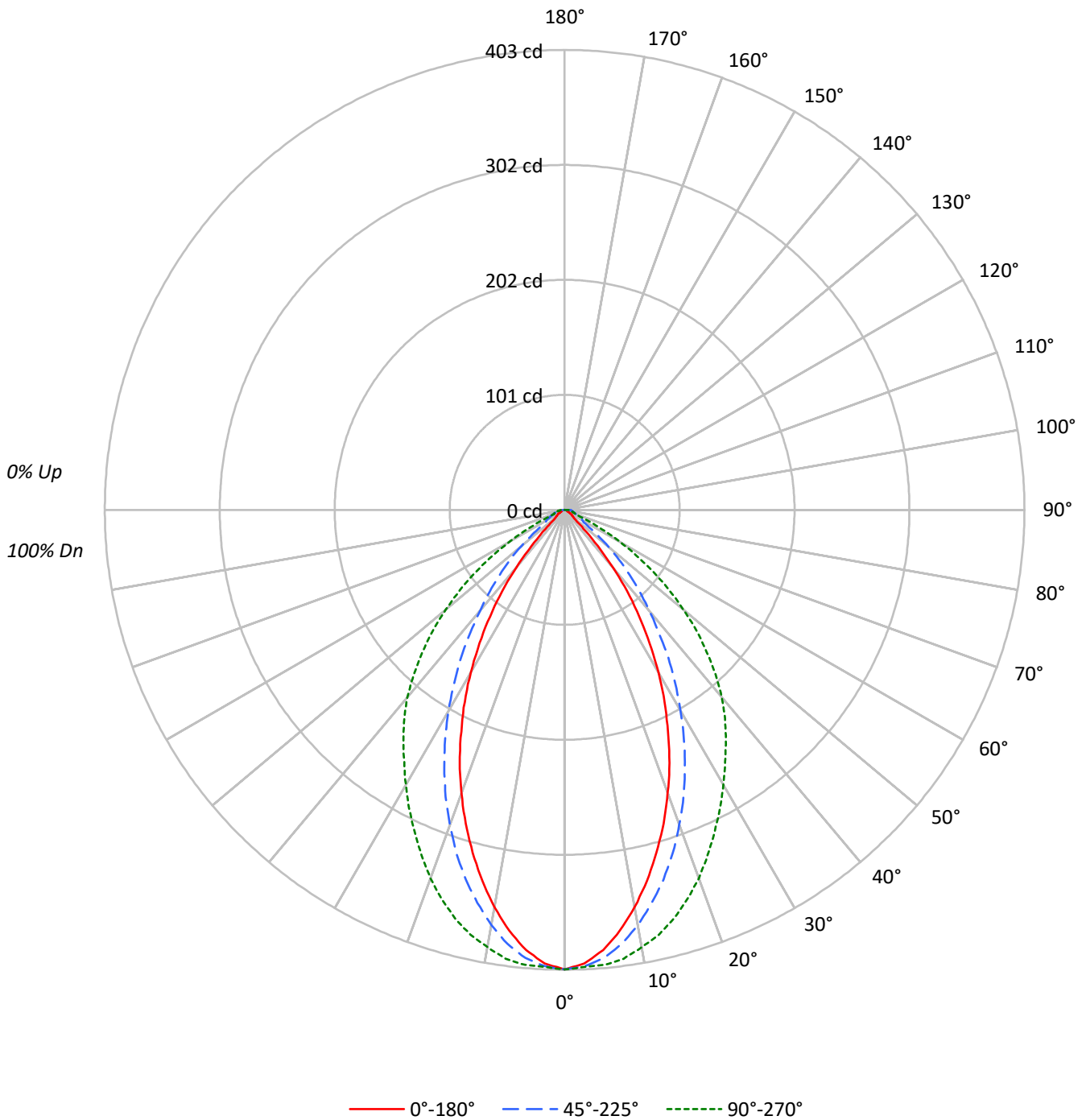
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 483.8 lumens  
Efficiency: N/A  
Efficacy: 24.7 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): 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°	4729	4729	4729
5°	4565	4645	4718
10°	4215	4406	4641
15°	3781	4072	4506
20°	3301	3670	4294
25°	2777	3231	4029
30°	2229	2755	3773
35°	1633	2269	3531
40°	1010	1766	3285
45°	389	1330	2924
50°	192	912	2475
55°	151	504	1941
60°	101	420	1301
65°	86	375	581
70°	86	340	340
75°	113	363	336
80°	169	460	372
85°	243	741	498

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2924 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.9	7.6
10°-20°	94.5	19.5
20°-30°	117.3	24.3
30°-40°	105.1	21.7
40°-50°	69.1	14.3
50°-60°	34.6	7.2
60°-70°	13.7	2.8
70°-80°	7.7	1.6
80°-90°	4.8	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°	248.8	51.4
0°-40°	353.9	73.2
0°-60°	457.6	94.6
0°-90°	483.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	483.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	403	403	403	403	403	
5°	387	394	394	397	400	36
15°	311	321	335	358	371	87
25°	214	228	249	284	311	98
35°	114	129	158	207	246	71
45°	23	39	80	135	176	22
55°	7	9	25	66	95	7
65°	3	9	14	17	21	3
75°	2	8	8	7	7	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°	402.7	402.7	402.7	402.7	402.7
2.5°	397.8	403.3	400.3	400.3	400.9
5°	387.3	393.5	394.1	396.6	400.3
7.5°	371.9	379.9	383.6	391.0	396.6
10°	353.5	362.1	369.5	382.4	389.2
12.5°	333.1	341.8	352.8	370.7	381.2
15°	311.0	320.8	335.0	357.8	370.7
17.5°	288.2	298.0	315.3	341.1	357.8
20°	264.2	275.3	293.7	323.3	343.6
22.5°	240.2	252.5	272.2	304.2	327.6
25°	214.3	227.8	249.4	284.5	311.0
27.5°	189.7	203.8	226.6	264.8	295.0
30°	164.4	178.6	203.2	244.5	278.3
32.5°	138.6	154.6	180.4	225.4	261.7
35°	113.9	129.3	158.3	206.9	246.3
37.5°	89.9	105.3	135.5	189.0	230.9
40°	65.9	81.9	115.2	171.8	214.3
42.5°	43.1	59.7	97.3	154.6	195.8
45°	23.4	38.8	80.1	134.9	176.1
47.5°	12.9	20.9	64.7	116.4	157.0
50°	10.5	11.7	49.9	99.1	135.5
52.5°	8.6	9.9	35.7	82.5	115.8
55°	7.4	8.6	24.6	66.5	94.8
57.5°	6.2	7.4	19.7	51.1	74.5
60°	4.3	7.4	17.9	37.6	55.4
62.5°	3.7	7.4	15.4	25.9	36.9
65°	3.1	8.6	13.5	17.2	20.9
67.5°	2.5	8.6	11.7	11.1	11.1
70°	2.5	8.6	9.9	9.2	9.9
72.5°	2.5	9.2	9.2	8.6	8.6
75°	2.5	8.0	8.0	7.4	7.4
77.5°	2.5	7.4	7.4	6.8	6.8
80°	2.5	6.8	6.8	6.2	5.5
82.5°	2.5	6.2	6.2	5.5	4.9
85°	1.8	5.5	5.5	5.5	3.7
87.5°	1.8	4.9	5.5	4.9	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)