

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: P1059299

Luminaire Tested: S123RDR-S560D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059299
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-S560D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

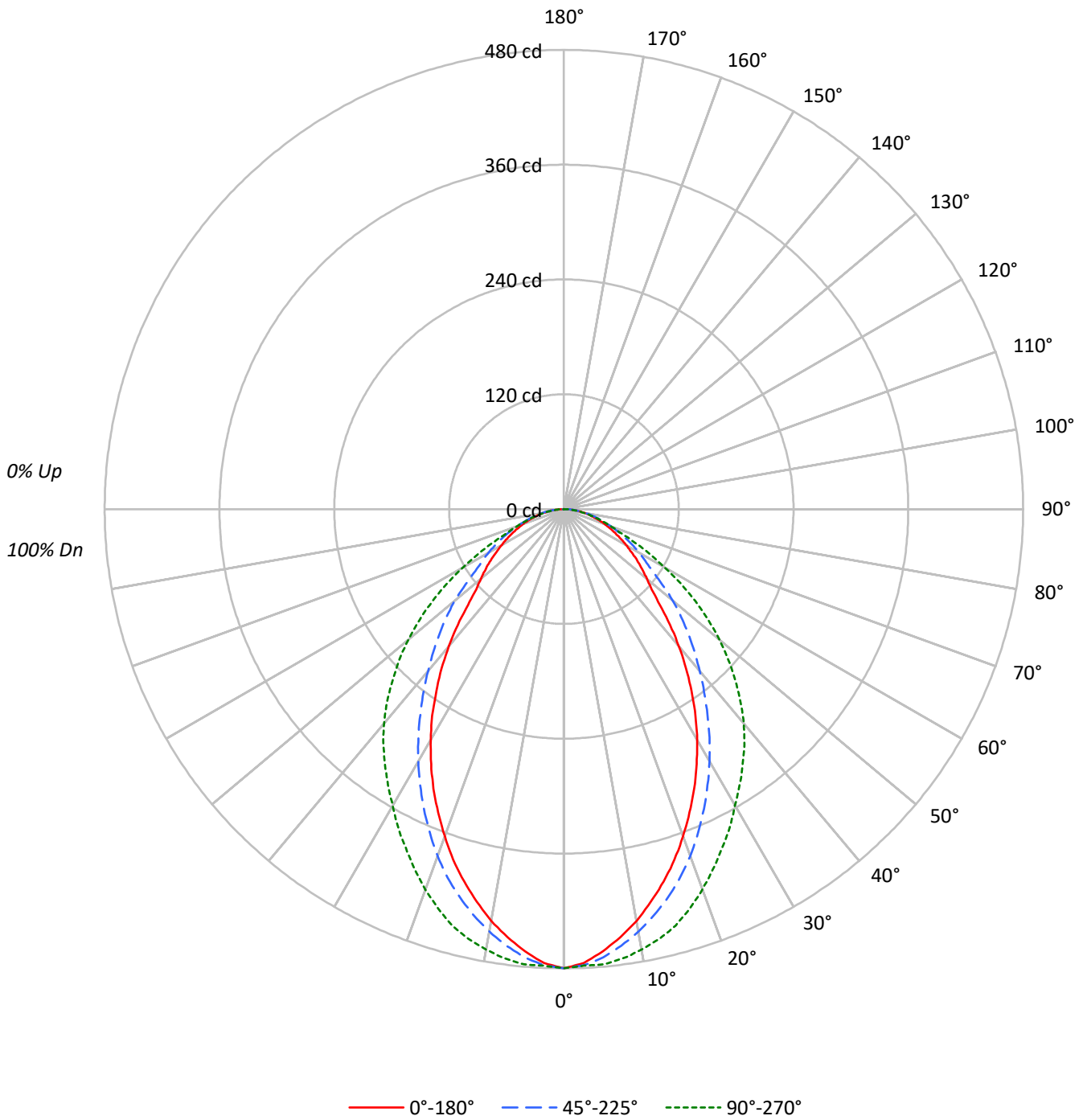
Lumens per Lamp: N/A
Luminaire Lumens: 866.9 lumens
Efficiency: N/A
Efficacy: 44.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	5635	5635	5635
5°	5472	5545	5631
10°	5213	5347	5575
15°	4898	5109	5479
20°	4549	4823	5287
25°	4177	4483	5066
30°	3776	4127	4851
35°	3331	3750	4670
40°	2863	3382	4485
45°	2355	3046	4205
50°	2066	2713	3875
55°	1912	2315	3433
60°	1757	2128	2842
65°	1642	1953	2237
70°	1545	1778	1778
75°	1456	1633	1533
80°	1373	1481	1292
85°	1293	1442	984

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4205 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	5.1
10°-20°	119.0	13.7
20°-30°	161.3	18.6
30°-40°	168.6	19.5
40°-50°	146.3	16.9
50°-60°	108.8	12.6
60°-70°	69.8	8.1
70°-80°	37.4	4.3
80°-90°	11.3	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°	324.7	37.4
0°-40°	493.3	56.9
0°-60°	748.4	86.3
0°-90°	866.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	464	472	470	474	478	43
15°	403	412	420	437	451	113
25°	322	332	346	369	391	148
35°	232	244	262	295	326	145
45°	142	152	183	223	253	112
55°	93	96	113	145	168	84
65°	59	64	70	75	80	59
75°	32	37	36	34	34	34
85°	10	12	11	9	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	479.9	479.9	479.9	479.9	479.9
2.5°	474.9	481.6	477.1	477.1	477.7
5°	464.2	472.1	470.4	473.7	477.7
7.5°	451.2	459.7	460.2	468.1	473.7
10°	437.2	445.6	448.4	459.7	467.6
12.5°	420.3	429.9	434.9	449.0	460.2
15°	402.9	412.4	420.3	437.2	450.7
17.5°	384.3	393.9	404.0	423.1	437.7
20°	364.0	374.2	386.0	405.1	423.1
22.5°	343.2	353.9	366.3	387.1	407.4
25°	322.4	332.5	346.0	369.1	391.0
27.5°	300.5	311.1	325.2	350.5	375.3
30°	278.5	289.2	304.4	331.4	357.8
32.5°	256.0	266.7	283.0	313.4	342.1
35°	232.4	243.6	261.6	294.8	325.8
37.5°	209.9	220.6	240.8	277.4	310.0
40°	186.8	198.1	220.6	259.9	292.6
42.5°	164.3	175.5	202.0	241.4	273.4
45°	141.8	152.5	183.4	222.8	253.2
47.5°	124.3	132.2	166.0	203.1	233.5
50°	113.1	115.9	148.5	184.0	212.1
52.5°	103.0	105.2	129.4	164.9	190.2
55°	93.4	95.6	113.1	145.2	167.7
57.5°	83.8	86.6	100.7	124.9	145.2
60°	74.8	78.2	90.6	106.9	121.0
62.5°	67.0	70.9	80.5	90.6	100.2
65°	59.1	64.1	70.3	74.8	80.5
67.5°	51.8	57.4	60.8	61.9	62.5
70°	45.0	50.6	51.8	51.8	51.8
72.5°	38.3	44.4	43.3	42.8	42.2
75°	32.1	37.1	36.0	34.3	33.8
77.5°	25.9	30.4	28.7	27.6	25.9
80°	20.3	23.6	21.9	20.8	19.1
82.5°	15.2	17.4	15.8	14.6	12.9
85°	9.6	11.8	10.7	9.0	7.3
87.5°	5.1	6.8	5.6	5.1	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)