

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: P1059319

Luminaire Tested: S123RDR-S560D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059319
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D950-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

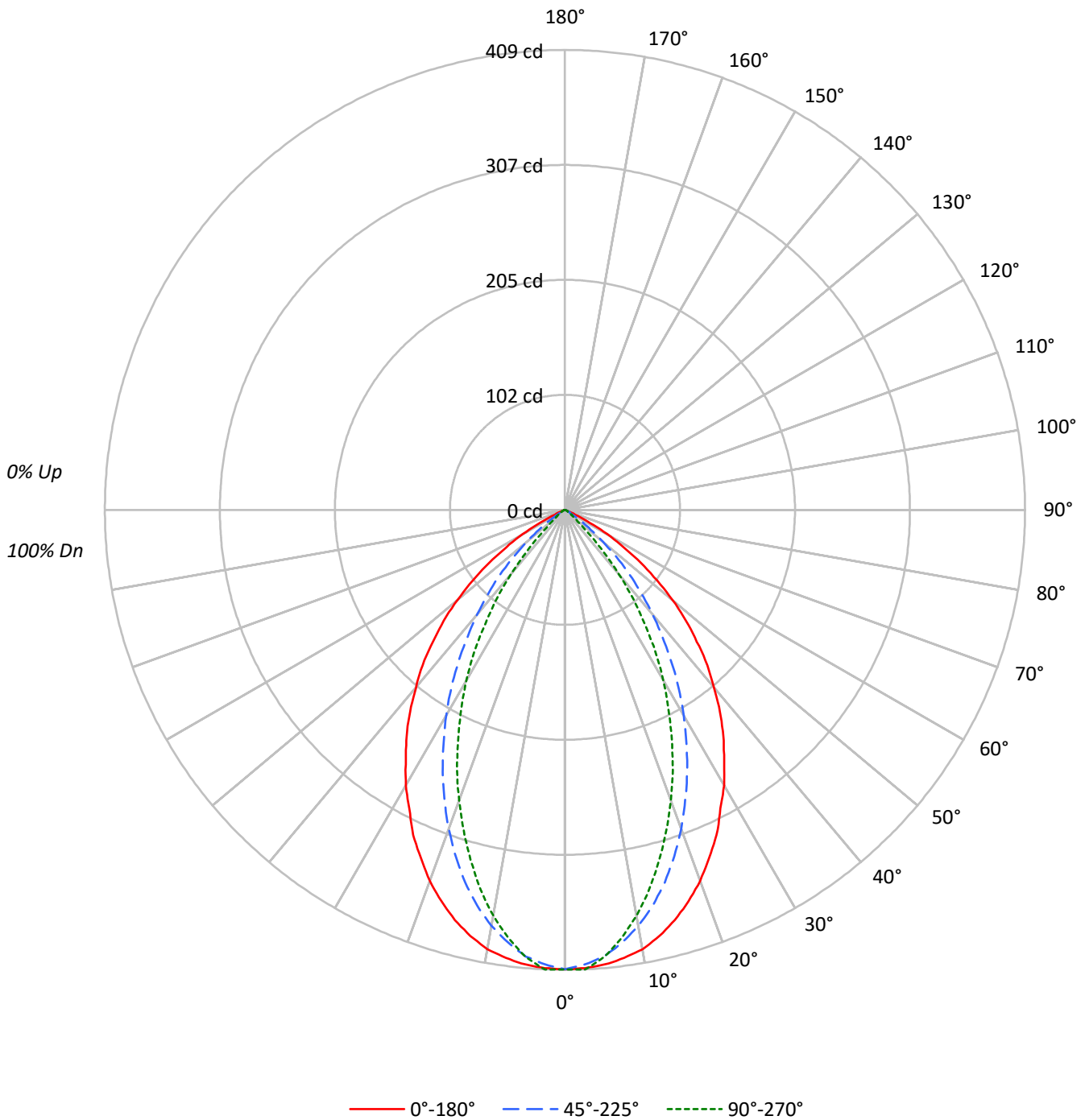
Lumens per Lamp: N/A
Luminaire Lumens: 466.2 lumens
Efficiency: N/A
Efficacy: 23.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94				92	
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85				84	
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78				76	
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71				69	
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65				63	
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60				58	
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55				53	
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51				49	
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47				46	
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44				42	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4798	4798	4798
5°	4784	4700	4708
10°	4730	4480	4370
15°	4590	4167	3927
20°	4390	3774	3436
25°	4134	3332	2907
30°	3836	2864	2373
35°	3518	2367	1763
40°	3156	1856	1130
45°	2753	1355	470
50°	2283	806	181
55°	1683	336	135
60°	1019	124	78
65°	275	72	36
70°	0	24	24
75°	0	0	32
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2753 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	8.1
10°-20°	97.1	20.8
20°-30°	121.0	25.9
30°-40°	108.2	23.2
40°-50°	68.3	14.6
50°-60°	28.6	6.1
60°-70°	5.4	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	255.7	54.8
0°-40°	363.8	78.0
0°-60°	460.7	98.8
0°-90°	466.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	466.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	409	409	409	409	409	
5°	406	405	399	400	399	38
15°	378	368	343	328	323	106
25°	319	293	257	235	224	146
35°	245	210	165	136	123	153
45°	166	129	82	43	28	128
55°	82	57	16	7	7	74
65°	10	7	3	1	1	14
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	408.6	408.6	408.6	408.6	408.6
2.5°	407.9	408.6	404.6	408.6	409.2
5°	405.9	405.3	398.7	400.0	399.4
7.5°	402.0	400.0	388.2	385.5	384.2
10°	396.7	391.5	375.7	369.1	366.5
12.5°	388.2	380.9	360.5	350.0	346.1
15°	377.6	368.4	342.8	328.3	323.0
17.5°	365.1	352.0	323.0	307.3	299.4
20°	351.3	332.9	302.0	282.9	275.0
22.5°	334.9	314.5	279.6	259.2	250.7
25°	319.1	293.4	257.2	234.9	224.4
27.5°	299.4	272.4	233.6	210.5	199.4
30°	282.9	252.0	211.2	185.5	175.0
32.5°	263.2	230.9	188.2	159.9	150.0
35°	245.4	209.9	165.1	135.5	123.0
37.5°	226.3	189.5	142.1	111.2	99.3
40°	205.9	169.1	121.1	86.8	73.7
42.5°	187.5	148.7	100.0	64.5	51.3
45°	165.8	129.0	81.6	43.4	28.3
47.5°	146.1	110.5	61.8	24.3	15.1
50°	125.0	91.5	44.1	12.5	9.9
52.5°	103.3	73.0	28.9	8.6	7.9
55°	82.2	56.6	16.4	6.6	6.6
57.5°	61.8	40.8	8.6	5.3	4.6
60°	43.4	27.0	5.3	3.9	3.3
62.5°	25.0	15.8	3.9	2.6	2.6
65°	9.9	7.2	2.6	1.3	1.3
67.5°	0.7	2.0	1.3	0.7	0.7
70°	0.0	0.0	0.7	0.7	0.7
72.5°	0.0	0.0	0.7	0.7	0.7
75°	0.0	0.0	0.0	0.0	0.7
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)