

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S123RDRP-S560D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

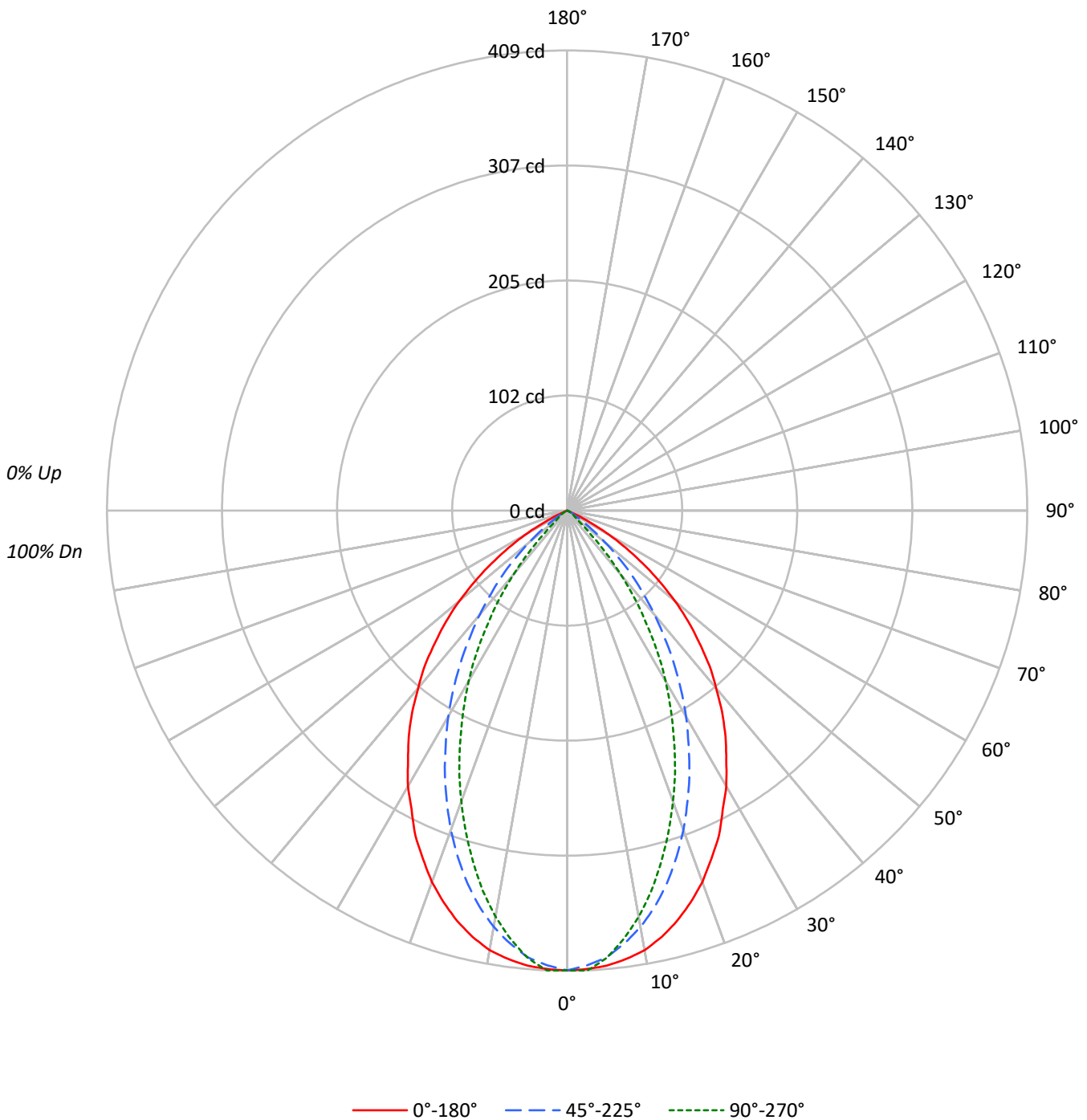
Lumens per Lamp: N/A
Luminaire Lumens: 466.2 lumens
Efficiency: N/A
Efficacy: 23.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	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					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					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



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	10.64	11.82	11.00	12.13	12.44	0.00	0.00	0.00	0.00	0.00
	3H	10.48	11.51	10.86	11.84	12.21	0.00	0.00	0.00	0.00	0.00
	4H	10.39	11.35	10.80	11.70	12.09	0.00	0.00	0.00	0.00	0.00
	6H	10.30	11.17	10.72	11.55	11.94	0.00	0.00	0.00	0.00	0.00
	8H	10.25	11.07	10.68	11.46	11.87	0.00	0.00	0.00	0.00	0.00
	12H	10.20	10.99	10.63	11.37	11.80	0.00	0.00	0.00	0.00	0.00
4H	2H	10.40	11.35	10.80	11.70	12.09	0.00	0.00	0.00	0.00	0.00
	3H	10.23	11.00	10.65	11.41	11.81	0.00	0.00	0.00	0.00	0.00
	4H	10.13	10.81	10.56	11.23	11.68	0.00	0.00	0.00	0.00	0.00
	6H	10.03	10.62	10.50	11.06	11.54	0.00	0.00	0.00	0.00	0.00
	8H	9.97	10.51	10.44	10.96	11.43	0.00	0.00	0.00	0.00	0.00
	12H	9.91	10.39	10.40	10.87	11.35	0.00	0.00	0.00	0.00	0.00
8H	4H	9.97	10.51	10.44	10.96	11.43	0.00	0.00	0.00	0.00	0.00
	6H	9.85	10.29	10.36	10.79	11.27	0.00	0.00	0.00	0.00	0.00
	8H	9.78	10.17	10.31	10.69	11.19	0.00	0.00	0.00	0.00	0.00
	12H	9.72	10.07	10.24	10.57	11.15	0.00	0.00	0.00	0.00	0.00
12H	4H	9.91	10.39	10.40	10.87	11.35	0.00	0.00	0.00	0.00	0.00
	6H	9.78	10.17	10.31	10.69	11.19	0.00	0.00	0.00	0.00	0.00
	8H	9.72	10.07	10.24	10.57	11.15	0.00	0.00	0.00	0.00	0.00