

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: P1059284

Luminaire Tested: S123RDRP-S560D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059284
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: S123RDRP-S560D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

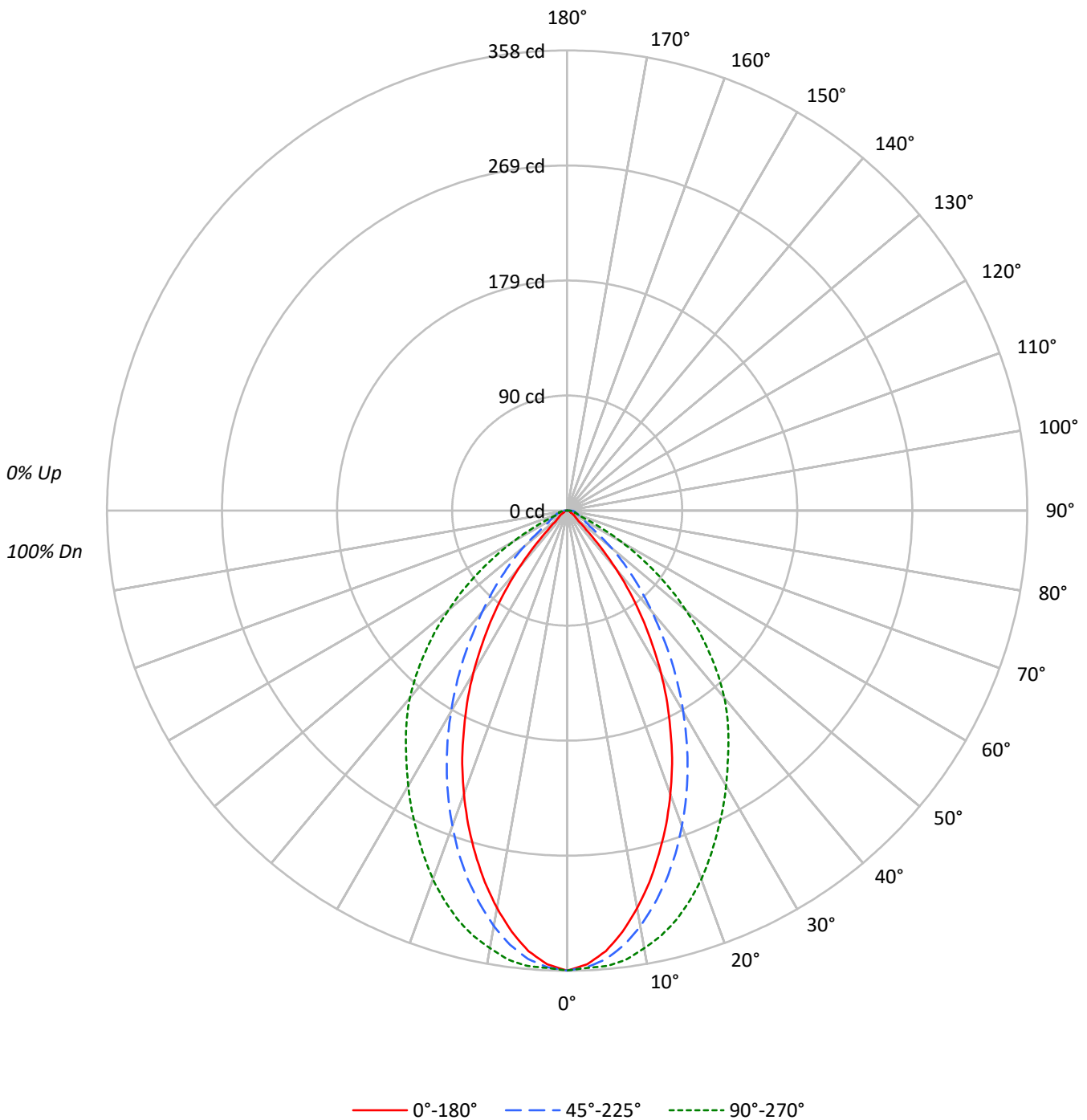
Lumens per Lamp: N/A
Luminaire Lumens: 429.8 lumens
Efficiency: N/A
Efficacy: 21.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	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°	4201	4201	4201
5°	4056	4127	4192
10°	3744	3913	4122
15°	3359	3618	4003
20°	2933	3260	3815
25°	2467	2871	3580
30°	1981	2447	3353
35°	1451	2015	3136
40°	897	1568	2919
45°	345	1181	2599
50°	170	809	2199
55°	135	448	1724
60°	89	373	1155
65°	75	333	517
70°	76	302	302
75°	100	322	299
80°	149	406	331
85°	216	660	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2599 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	7.6
10°-20°	84.0	19.5
20°-30°	104.2	24.3
30°-40°	93.4	21.7
40°-50°	61.4	14.3
50°-60°	30.8	7.2
60°-70°	12.1	2.8
70°-80°	6.8	1.6
80°-90°	4.3	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°	221.0	51.4
0°-40°	314.4	73.2
0°-60°	406.5	94.6
0°-90°	429.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	429.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	358	358	358	358	358	
5°	344	350	350	352	356	32
15°	276	285	298	318	329	77
25°	190	202	222	253	276	87
35°	101	115	141	184	219	63
45°	21	34	71	120	156	20
55°	7	8	22	59	84	6
65°	3	8	12	15	19	3
75°	2	7	7	7	7	2
85°	2	5	5	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	357.8	357.8	357.8	357.8	357.8
2.5°	353.4	358.3	355.6	355.6	356.1
5°	344.1	349.6	350.1	352.3	355.6
7.5°	330.4	337.5	340.8	347.4	352.3
10°	314.0	321.7	328.2	339.7	345.7
12.5°	296.0	303.6	313.5	329.3	338.6
15°	276.3	285.0	297.6	317.8	329.3
17.5°	256.0	264.8	280.1	303.1	317.8
20°	234.7	244.5	260.9	287.2	305.3
22.5°	213.4	224.3	241.8	270.2	291.0
25°	190.4	202.4	221.6	252.7	276.3
27.5°	168.5	181.1	201.3	235.2	262.0
30°	146.1	158.6	180.5	217.2	247.3
32.5°	123.1	137.3	160.3	200.2	232.5
35°	101.2	114.9	140.6	183.8	218.8
37.5°	79.9	93.5	120.4	167.9	205.1
40°	58.5	72.8	102.3	152.6	190.4
42.5°	38.3	53.1	86.4	137.3	174.0
45°	20.8	34.5	71.1	119.8	156.5
47.5°	11.5	18.6	57.4	103.4	139.5
50°	9.3	10.4	44.3	88.1	120.4
52.5°	7.7	8.8	31.7	73.3	102.8
55°	6.6	7.7	21.9	59.1	84.2
57.5°	5.5	6.6	17.5	45.4	66.2
60°	3.8	6.6	15.9	33.4	49.2
62.5°	3.3	6.6	13.7	23.0	32.8
65°	2.7	7.7	12.0	15.3	18.6
67.5°	2.2	7.7	10.4	9.8	9.8
70°	2.2	7.7	8.8	8.2	8.8
72.5°	2.2	8.2	8.2	7.7	7.7
75°	2.2	7.1	7.1	6.6	6.6
77.5°	2.2	6.6	6.6	6.0	6.0
80°	2.2	6.0	6.0	5.5	4.9
82.5°	2.2	5.5	5.5	4.9	4.4
85°	1.6	4.9	4.9	4.9	3.3
87.5°	1.6	4.4	4.9	4.4	2.7
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	0.00	0.00	0.00	0.00	0.00	11.53	12.79	11.90	13.10	13.42
	3H	0.01	1.12	0.39	1.45	1.81	11.61	12.72	11.99	13.05	13.42
	4H	1.16	2.20	1.57	2.55	2.93	11.68	12.71	12.08	13.06	13.45
	6H	2.21	3.16	2.63	3.54	3.93	11.77	12.72	12.19	13.09	13.49
	8H	2.75	3.65	3.19	4.04	4.45	11.83	12.73	12.26	13.12	13.53
	12H	3.22	4.08	3.66	4.46	4.90	11.90	12.76	12.34	13.15	13.58
4H	2H	0.71	1.74	1.11	2.10	2.48	11.39	12.43	11.80	12.78	13.16
	3H	3.18	4.03	3.60	4.43	4.84	11.57	12.41	11.98	12.82	13.22
	4H	4.52	5.28	4.96	5.70	6.14	11.70	12.45	12.13	12.87	13.32
	6H	5.66	6.31	6.12	6.76	7.23	11.91	12.56	12.38	13.01	13.48
	8H	6.17	6.78	6.64	7.23	7.70	12.04	12.65	12.51	13.09	13.57
	12H	6.62	7.16	7.10	7.64	8.12	12.20	12.74	12.68	13.22	13.69
8H	4H	5.44	6.05	5.91	6.50	6.97	11.70	12.31	12.17	12.76	13.23
	6H	7.04	7.54	7.54	8.04	8.52	12.03	12.53	12.53	13.03	13.51
	8H	7.87	8.32	8.39	8.84	9.33	12.26	12.71	12.78	13.22	13.72
	12H	8.64	9.04	9.15	9.53	10.11	12.58	12.98	13.10	13.48	14.05
12H	4H	5.61	6.15	6.09	6.63	7.11	11.69	12.23	12.18	12.71	13.19
	6H	7.35	7.81	7.88	8.32	8.81	12.06	12.51	12.58	13.03	13.52
	8H	8.37	8.77	8.88	9.26	9.83	12.37	12.77	12.89	13.26	13.84