

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



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: P1059725

Luminaire Tested: S123RDR-H560D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059725
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-H560D950-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

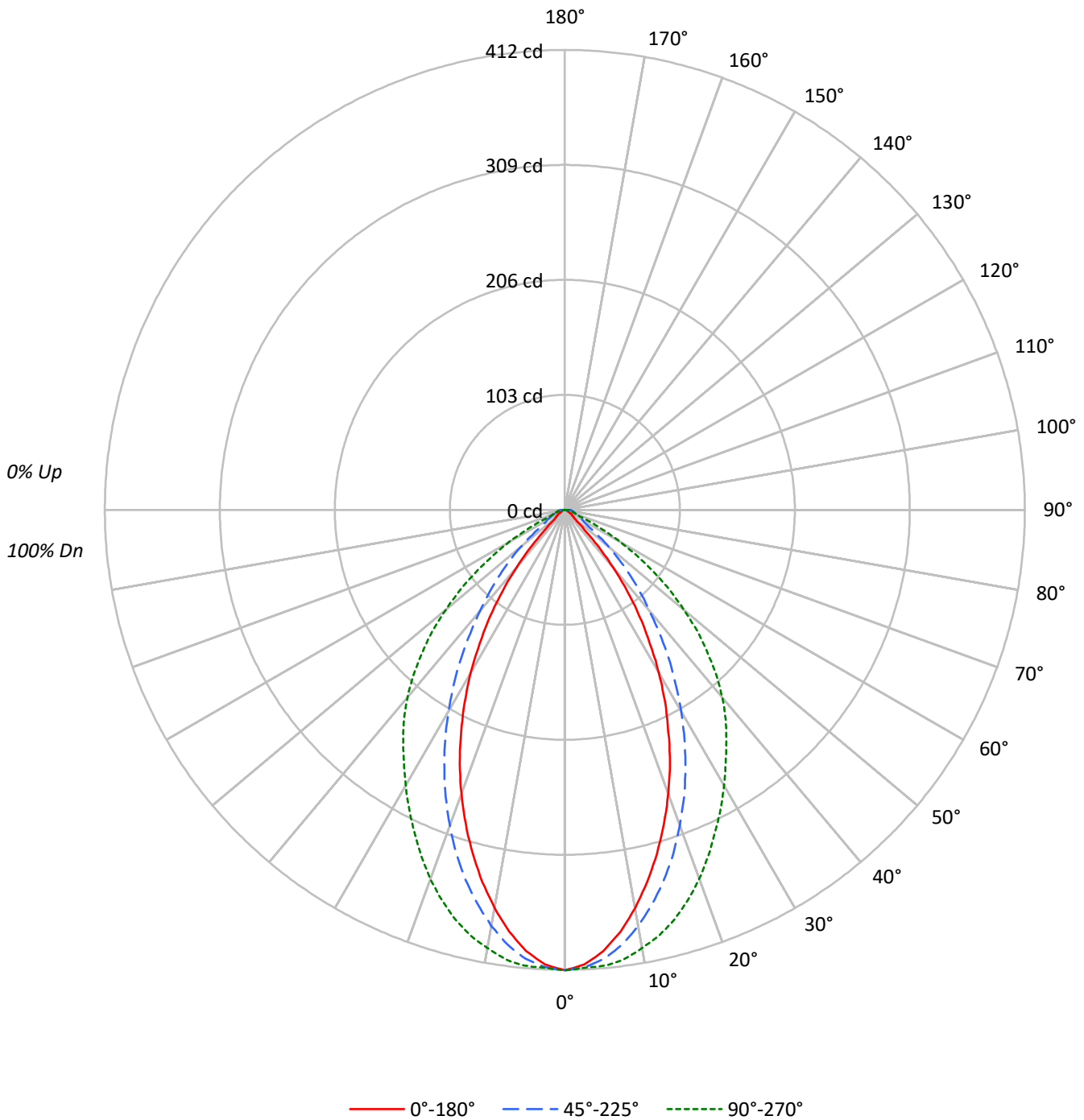
Lumens per Lamp: N/A
Luminaire Lumens: 495.6 lumens
Efficiency: N/A
Efficacy: 28.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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°	4844	4844	4844
5°	4677	4759	4833
10°	4318	4513	4754
15°	3873	4172	4616
20°	3381	3760	4399
25°	2844	3310	4128
30°	2283	2823	3866
35°	1673	2324	3617
40°	1035	1809	3365
45°	399	1362	2996
50°	195	933	2536
55°	156	516	1988
60°	103	430	1334
65°	89	386	595
70°	86	347	347
75°	113	372	345
80°	169	467	385
85°	256	768	512

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2996 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	7.6
10°-20°	96.8	19.5
20°-30°	120.2	24.3
30°-40°	107.7	21.7
40°-50°	70.8	14.3
50°-60°	35.5	7.2
60°-70°	14.0	2.8
70°-80°	7.8	1.6
80°-90°	4.9	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°	254.9	51.4
0°-40°	362.5	73.2
0°-60°	468.8	94.6
0°-90°	495.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	495.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	397	403	404	406	410	37
15°	319	329	343	366	380	89
25°	220	233	256	291	319	100
35°	117	132	162	212	252	72
45°	24	40	82	138	180	23
55°	8	9	25	68	97	7
65°	3	9	14	18	21	3
75°	2	8	8	8	8	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°	412.5	412.5	412.5	412.5	412.5
2.5°	407.5	413.2	410.0	410.0	410.7
5°	396.8	403.1	403.7	406.2	410.0
7.5°	381.0	389.2	393.0	400.6	406.2
10°	362.1	370.9	378.5	391.7	398.7
12.5°	341.3	350.1	361.5	379.7	390.5
15°	318.6	328.7	343.2	366.5	379.7
17.5°	295.2	305.3	323.0	349.5	366.5
20°	270.6	282.0	300.9	331.2	352.0
22.5°	246.0	258.6	278.8	311.6	335.6
25°	219.5	233.4	255.5	291.4	318.6
27.5°	194.3	208.8	232.1	271.2	302.2
30°	168.4	182.9	208.2	250.4	285.1
32.5°	141.9	158.3	184.8	230.9	268.1
35°	116.7	132.5	162.1	212.0	252.3
37.5°	92.1	107.9	138.8	193.7	236.6
40°	67.5	83.9	118.0	176.0	219.5
42.5°	44.2	61.2	99.7	158.3	200.6
45°	24.0	39.7	82.0	138.1	180.4
47.5°	13.2	21.4	66.2	119.2	160.9
50°	10.7	12.0	51.1	101.6	138.8
52.5°	8.8	10.1	36.6	84.5	118.6
55°	7.6	8.8	25.2	68.1	97.1
57.5°	6.3	7.6	20.2	52.4	76.3
60°	4.4	7.6	18.3	38.5	56.8
62.5°	3.8	7.6	15.8	26.5	37.8
65°	3.2	8.8	13.9	17.7	21.4
67.5°	2.5	8.8	12.0	11.4	11.4
70°	2.5	8.8	10.1	9.5	10.1
72.5°	2.5	9.5	9.5	8.8	8.8
75°	2.5	8.2	8.2	7.6	7.6
77.5°	2.5	7.6	7.6	6.9	6.9
80°	2.5	6.9	6.9	6.3	5.7
82.5°	2.5	6.3	6.3	5.7	5.0
85°	1.9	5.7	5.7	5.7	3.8
87.5°	1.9	5.0	5.7	5.0	3.2
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	12.03	13.29	12.40	13.60	13.92
	3H	0.46	1.57	0.84	1.90	2.26	12.11	13.22	12.49	13.56	13.92
	4H	1.62	2.66	2.02	3.01	3.39	12.18	13.21	12.58	13.56	13.95
	6H	2.67	3.62	3.08	3.99	4.38	12.27	13.22	12.69	13.59	13.99
	8H	3.20	4.10	3.63	4.49	4.90	12.33	13.23	12.76	13.62	14.03
	12H	3.68	4.54	4.12	4.93	5.36	12.40	13.26	12.83	13.64	14.07
4H	2H	1.22	2.25	1.62	2.60	2.99	11.89	12.93	12.30	13.28	13.66
	3H	3.67	4.51	4.08	4.92	5.32	12.07	12.91	12.48	13.32	13.72
	4H	5.01	5.77	5.44	6.19	6.63	12.20	12.95	12.63	13.37	13.82
	6H	6.14	6.79	6.60	7.24	7.70	12.41	13.06	12.87	13.51	13.98
	8H	6.64	7.25	7.11	7.70	8.17	12.53	13.14	13.00	13.59	14.06
	12H	7.10	7.64	7.59	8.12	8.60	12.69	13.23	13.18	13.72	14.19
8H	4H	5.93	6.54	6.40	6.99	7.46	12.20	12.81	12.67	13.26	13.73
	6H	7.52	8.02	8.02	8.52	9.00	12.53	13.03	13.03	13.52	14.01
	8H	8.34	8.79	8.86	9.31	9.80	12.75	13.21	13.28	13.72	14.21
	12H	9.13	9.52	9.64	10.02	10.59	13.08	13.48	13.60	13.98	14.55
12H	4H	6.10	6.63	6.58	7.12	7.59	12.19	12.73	12.68	13.21	13.69
	6H	7.83	8.28	8.36	8.80	9.29	12.56	13.01	13.08	13.52	14.02
	8H	8.84	9.24	9.36	9.73	10.31	12.87	13.27	13.38	13.76	14.33