

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: P1059488

Luminaire Tested: S123RDR-H1000D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059488
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-H1000D950-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

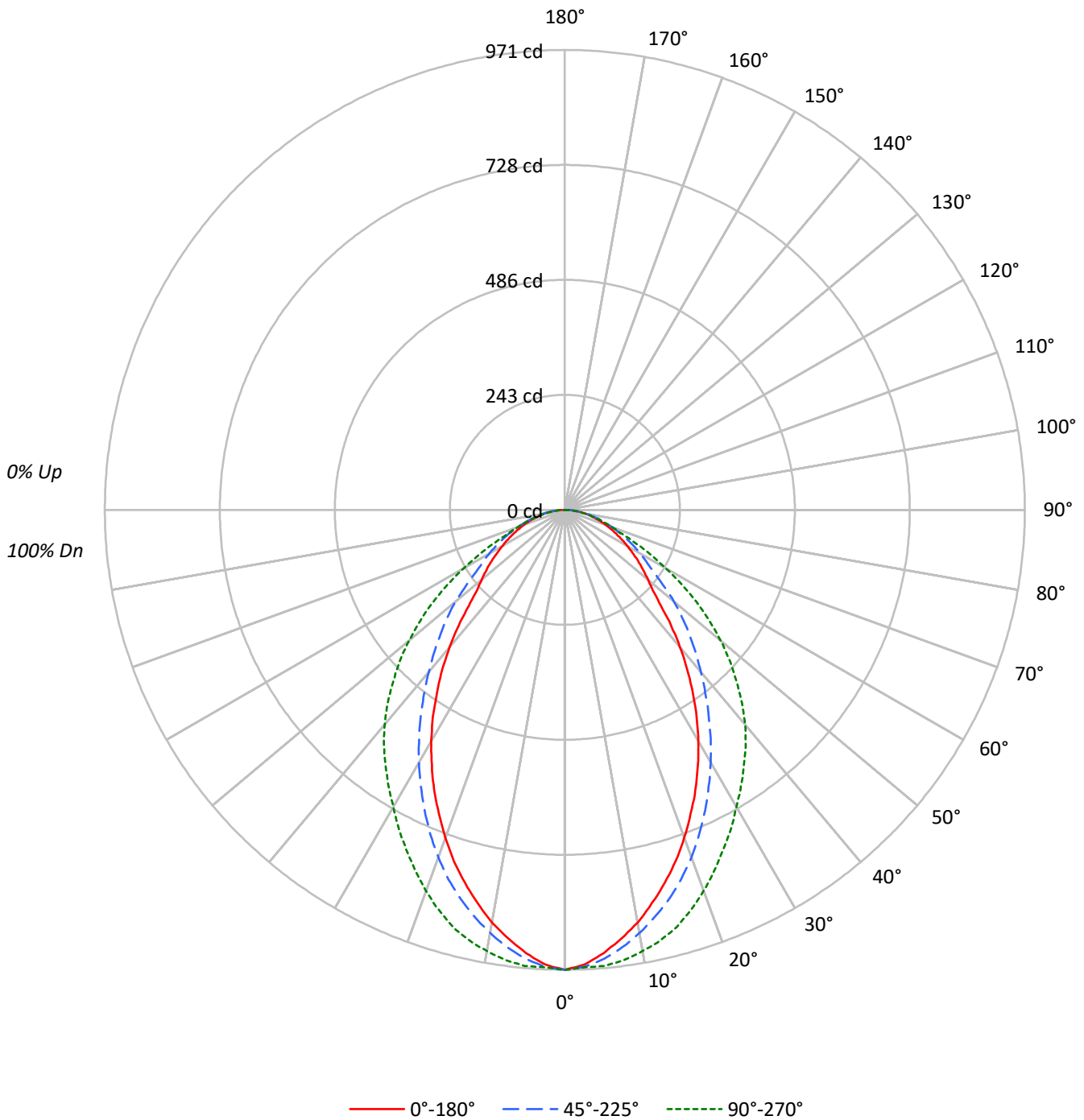
Lumens per Lamp: N/A
Luminaire Lumens: 1754.3 lumens
Efficiency: N/A
Efficacy: 56.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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°	11404	11404	11404
5°	11072	11219	11394
10°	10549	10819	11281
15°	9910	10339	11087
20°	9205	9759	10699
25°	8453	9072	10252
30°	7642	8352	9818
35°	6740	7589	9450
40°	5794	6841	9075
45°	4764	6164	8507
50°	4180	5491	7841
55°	3869	4684	6946
60°	3556	4305	5749
65°	3320	3954	4523
70°	3128	3595	3595
75°	2944	3307	3099
80°	2773	3002	2617
85°	2614	2910	1994

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8507 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	5.1
10°-20°	240.7	13.7
20°-30°	326.4	18.6
30°-40°	341.3	19.5
40°-50°	296.0	16.9
50°-60°	220.2	12.6
60°-70°	141.3	8.1
70°-80°	75.8	4.3
80°-90°	22.9	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°	657.0	37.4
0°-40°	998.2	56.9
0°-60°	1514.4	86.3
0°-90°	1754.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1754.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	939	955	952	959	967	88
15°	815	835	850	885	912	228
25°	652	673	700	747	791	299
35°	470	493	529	597	659	294
45°	287	308	371	451	512	226
55°	189	194	229	294	339	169
65°	120	130	142	151	163	119
75°	65	75	73	70	68	69
85°	19	24	22	18	15	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	971.2	971.2	971.2	971.2	971.2
2.5°	960.9	974.6	965.5	965.5	966.6
5°	939.3	955.2	951.8	958.7	966.6
7.5°	913.1	930.2	931.3	947.3	958.7
10°	884.7	901.7	907.4	930.2	946.1
12.5°	850.5	869.9	880.1	908.6	931.3
15°	815.2	834.6	850.5	884.7	912.0
17.5°	777.6	797.0	817.5	856.2	885.8
20°	736.6	757.1	781.0	819.8	856.2
22.5°	694.5	716.1	741.2	783.3	824.3
25°	652.4	672.9	700.2	746.9	791.3
27.5°	608.0	629.6	658.1	709.3	759.4
30°	563.6	585.2	616.0	670.6	724.1
32.5°	518.0	539.7	572.7	634.2	692.2
35°	470.2	493.0	529.4	596.6	659.2
37.5°	424.7	446.3	487.3	561.3	627.3
40°	378.0	400.8	446.3	526.0	592.0
42.5°	332.5	355.2	408.7	488.4	553.3
45°	286.9	308.5	371.2	450.9	512.3
47.5°	251.6	267.6	335.9	411.0	472.5
50°	228.8	234.5	300.6	372.3	429.2
52.5°	208.4	212.9	261.9	333.6	384.8
55°	189.0	193.6	228.8	293.7	339.3
57.5°	169.6	175.3	203.8	252.8	293.7
60°	151.4	158.3	183.3	216.3	244.8
62.5°	135.5	143.5	162.8	183.3	202.7
65°	119.5	129.8	142.3	151.4	162.8
67.5°	104.7	116.1	123.0	125.2	126.4
70°	91.1	102.5	104.7	104.7	104.7
72.5°	77.4	89.9	87.7	86.5	85.4
75°	64.9	75.1	72.9	69.5	68.3
77.5°	52.4	61.5	58.1	55.8	52.4
80°	41.0	47.8	44.4	42.1	38.7
82.5°	30.7	35.3	31.9	29.6	26.2
85°	19.4	23.9	21.6	18.2	14.8
87.5°	10.2	13.7	11.4	10.2	5.7
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	15.24	16.72	15.61	17.04	17.35	18.00	19.48	18.36	19.80	20.11
	3H	16.95	18.28	17.33	18.61	18.97	19.02	20.35	19.40	20.68	21.04
	4H	17.61	18.86	18.01	19.21	19.59	19.38	20.63	19.79	20.98	21.36
	6H	18.11	19.26	18.53	19.63	20.02	19.64	20.79	20.05	21.16	21.55
	8H	18.29	19.39	18.72	19.78	20.18	19.71	20.80	20.14	21.19	21.60
	12H	18.42	19.47	18.85	19.85	20.28	19.75	20.79	20.18	21.18	21.60
4H	2H	16.02	17.26	16.42	17.61	17.99	18.27	19.52	18.67	19.86	20.24
	3H	17.94	18.98	18.35	19.38	19.78	19.52	20.56	19.93	20.96	21.36
	4H	18.75	19.68	19.19	20.10	20.54	20.01	20.94	20.44	21.36	21.80
	6H	19.39	20.20	19.85	20.64	21.11	20.39	21.20	20.85	21.64	22.10
	8H	19.62	20.38	20.09	20.82	21.29	20.50	21.26	20.97	21.70	22.17
	12H	19.79	20.47	20.28	20.95	21.42	20.57	21.25	21.06	21.73	22.20
8H	4H	19.07	19.83	19.54	20.27	20.74	20.20	20.96	20.67	21.40	21.87
	6H	19.87	20.49	20.36	20.98	21.46	20.69	21.31	21.19	21.81	22.28
	8H	20.19	20.75	20.71	21.26	21.75	20.87	21.43	21.38	21.94	22.43
	12H	20.47	20.97	20.98	21.46	22.02	21.00	21.49	21.51	21.99	22.55
12H	4H	19.10	19.77	19.58	20.25	20.72	20.22	20.89	20.70	21.37	21.84
	6H	19.92	20.48	20.43	20.99	21.48	20.73	21.29	21.24	21.80	22.29
	8H	20.31	20.81	20.82	21.30	21.87	20.96	21.45	21.47	21.95	22.51