

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: P1059461

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059461
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-H1000D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

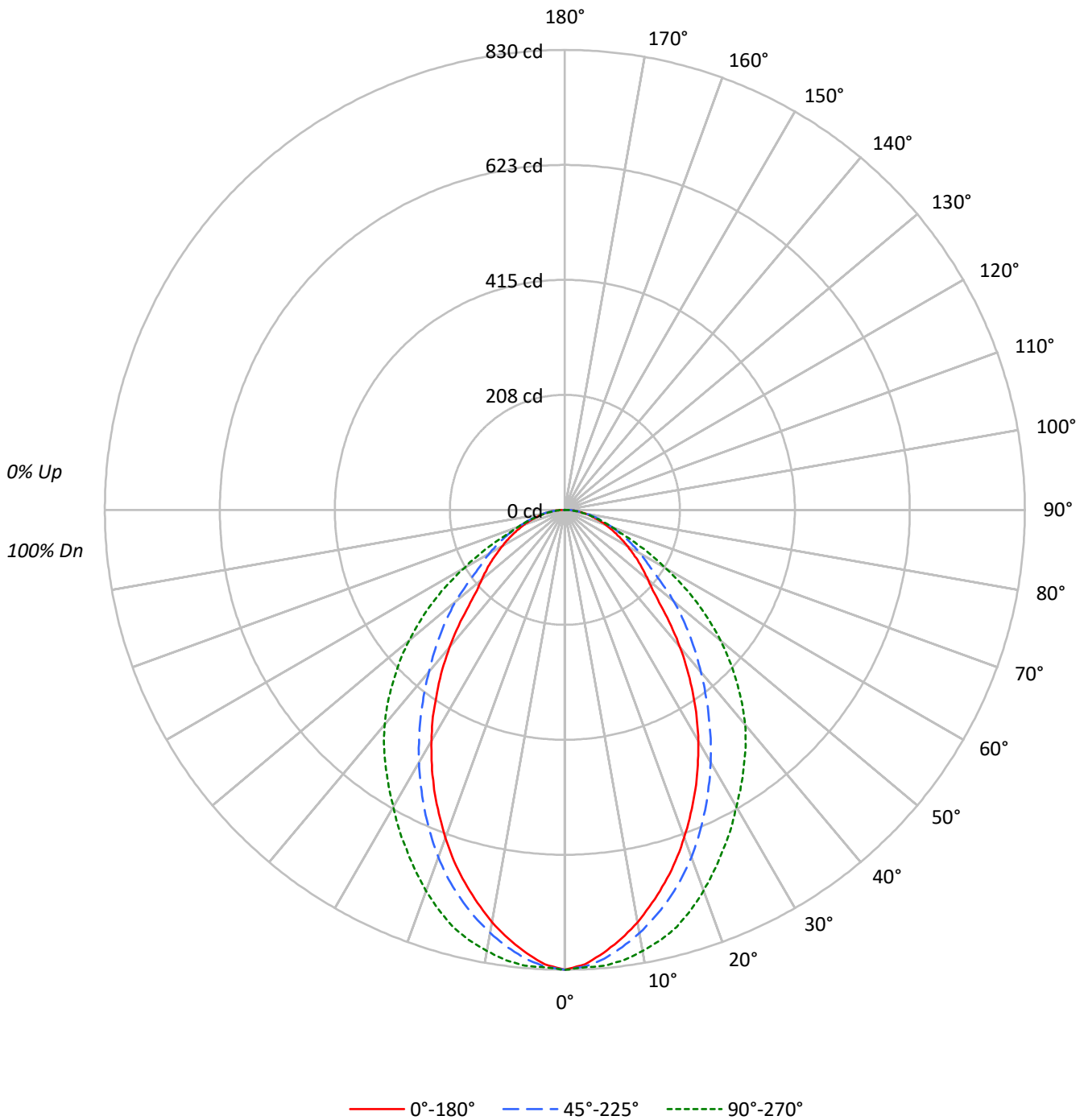
Lumens per Lamp: N/A
Luminaire Lumens: 1499.2 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	9746	9746	9746
5°	9462	9588	9737
10°	9014	9247	9641
15°	8470	8835	9475
20°	7866	8341	9143
25°	7223	7753	8761
30°	6530	7137	8390
35°	5761	6487	8076
40°	4951	5846	7756
45°	4072	5268	7272
50°	3573	4693	6701
55°	3306	4004	5937
60°	3039	3680	4913
65°	2840	3379	3865
70°	2671	3073	3073
75°	2518	2827	2650
80°	2367	2563	2238
85°	2223	2492	1698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7272 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.8	5.1
10°-20°	205.7	13.7
20°-30°	278.9	18.6
30°-40°	291.6	19.5
40°-50°	253.0	16.9
50°-60°	188.2	12.6
60°-70°	120.7	8.1
70°-80°	64.8	4.3
80°-90°	19.6	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°	561.4	37.4
0°-40°	853.1	56.9
0°-60°	1294.2	86.3
0°-90°	1499.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1499.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	803	816	813	819	826	75
15°	697	713	727	756	779	195
25°	558	575	598	638	676	256
35°	402	421	452	510	563	251
45°	245	264	317	385	438	193
55°	162	165	196	251	290	145
65°	102	111	122	129	139	102
75°	56	64	62	59	58	59
85°	16	20	18	16	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	830.0	830.0	830.0	830.0	830.0
2.5°	821.2	832.9	825.1	825.1	826.1
5°	802.7	816.4	813.4	819.3	826.1
7.5°	780.4	795.0	795.9	809.5	819.3
10°	756.0	770.6	775.5	795.0	808.6
12.5°	726.8	743.4	752.1	776.5	795.9
15°	696.7	713.2	726.8	756.0	779.4
17.5°	664.6	681.1	698.6	731.7	757.0
20°	629.5	647.1	667.5	700.6	731.7
22.5°	593.5	612.0	633.4	669.4	704.5
25°	557.5	575.1	598.4	638.3	676.2
27.5°	519.6	538.1	562.4	606.2	649.0
30°	481.6	500.1	526.4	573.1	618.8
32.5°	442.7	461.2	489.4	542.0	591.6
35°	401.9	421.3	452.5	509.9	563.4
37.5°	362.9	381.4	416.5	479.7	536.1
40°	323.0	342.5	381.4	449.5	506.0
42.5°	284.1	303.6	349.3	417.4	472.9
45°	245.2	263.7	317.2	385.3	437.9
47.5°	215.0	228.7	287.0	351.3	403.8
50°	195.6	200.4	256.9	318.2	366.8
52.5°	178.1	182.0	223.8	285.1	328.9
55°	161.5	165.4	195.6	251.0	290.0
57.5°	145.0	149.8	174.2	216.0	251.0
60°	129.4	135.2	156.7	184.9	209.2
62.5°	115.8	122.6	139.1	156.7	173.2
65°	102.2	110.9	121.6	129.4	139.1
67.5°	89.5	99.2	105.1	107.0	108.0
70°	77.8	87.6	89.5	89.5	89.5
72.5°	66.2	76.9	74.9	73.9	73.0
75°	55.5	64.2	62.3	59.4	58.4
77.5°	44.8	52.5	49.6	47.7	44.8
80°	35.0	40.9	37.9	36.0	33.1
82.5°	26.3	30.2	27.2	25.3	22.4
85°	16.5	20.4	18.5	15.6	12.6
87.5°	8.8	11.7	9.7	8.8	4.9
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	14.69	16.18	15.06	16.49	16.81	17.45	18.94	17.82	19.25	19.56
	3H	16.41	17.73	16.78	18.06	18.42	18.47	19.80	18.85	20.13	20.49
	4H	17.07	18.31	17.47	18.66	19.04	18.84	20.08	19.24	20.43	20.81
	6H	17.57	18.72	17.98	19.08	19.48	19.09	20.24	19.51	20.61	21.00
	8H	17.75	18.84	18.17	19.23	19.63	19.16	20.26	19.59	20.65	21.05
	12H	17.87	18.92	18.30	19.30	19.73	19.20	20.25	19.63	20.63	21.06
4H	2H	15.47	16.72	15.87	17.07	17.44	17.72	18.97	18.12	19.32	19.70
	3H	17.40	18.43	17.81	18.83	19.23	18.98	20.01	19.39	20.41	20.81
	4H	18.21	19.14	18.64	19.55	19.99	19.46	20.39	19.90	20.81	21.25
	6H	18.85	19.66	19.31	20.10	20.56	19.85	20.65	20.30	21.10	21.56
	8H	19.08	19.83	19.54	20.28	20.74	19.96	20.71	20.42	21.16	21.63
	12H	19.25	19.92	19.73	20.40	20.87	20.03	20.70	20.51	21.18	21.65
8H	4H	18.53	19.28	18.99	19.73	20.19	19.66	20.41	20.12	20.86	21.32
	6H	19.32	19.94	19.82	20.44	20.91	20.14	20.77	20.64	21.26	21.74
	8H	19.65	20.21	20.16	20.72	21.21	20.32	20.88	20.84	21.39	21.88
	12H	19.93	20.42	20.44	20.91	21.48	20.45	20.95	20.96	21.44	22.01
12H	4H	18.55	19.22	19.03	19.70	20.18	19.67	20.35	20.15	20.82	21.30
	6H	19.37	19.93	19.89	20.45	20.93	20.18	20.74	20.70	21.25	21.74
	8H	19.77	20.26	20.28	20.76	21.32	20.41	20.91	20.92	21.40	21.96