

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: P1058264

Luminaire Tested: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

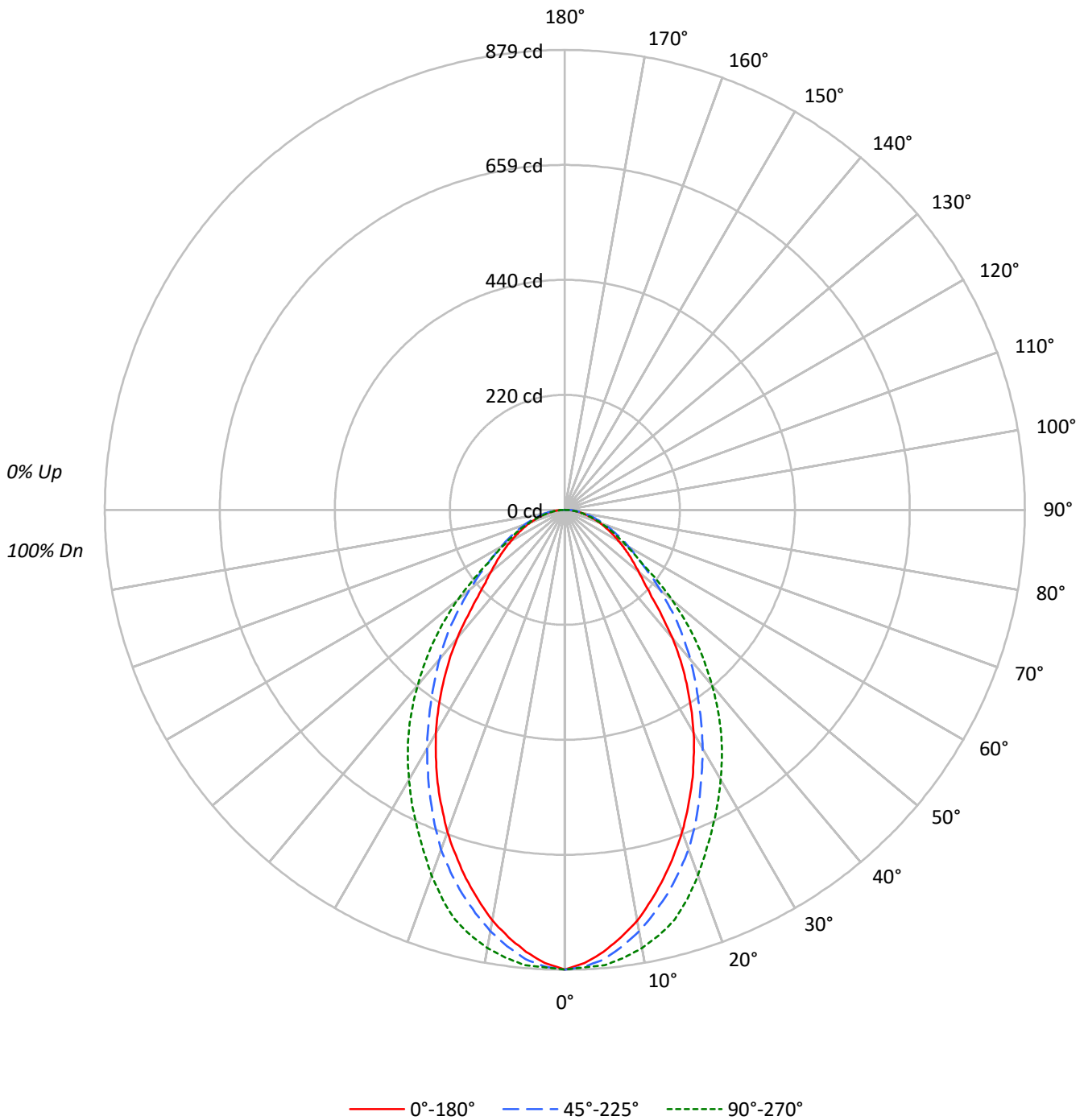
Lumens per Lamp: N/A
Luminaire Lumens: 1430.8 lumens
Efficiency: N/A
Efficacy: 39.2 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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

TEST NUMBER: P1058264

CATALOG NUMBER: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058264

CATALOG NUMBER: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S

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	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16214	16214	16214
5°	15709	15969	16182
10°	14935	15318	15938
15°	13936	14496	15495
20°	12872	13573	14600
25°	11711	12385	13607
30°	10489	11222	12690
35°	9134	10026	11720
40°	7711	8970	10536
45°	6125	7920	9220
50°	5271	6809	7650
55°	4800	5826	5868
60°	4377	5178	4990
65°	4008	4676	4397
70°	3717	4332	3922
75°	3458	4092	3458
80°	3252	3932	3114
85°	3239	4044	2710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9220 cd/sqm



TEST NUMBER: P1058264

CATALOG NUMBER: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.1	5.7
10°-20°	214.4	15.0
20°-30°	282.2	19.7
30°-40°	283.8	19.8
40°-50°	230.0	16.1
50°-60°	158.4	11.1
60°-70°	103.7	7.2
70°-80°	57.8	4.0
80°-90°	19.6	1.4
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°	577.7	40.4
0°-40°	861.5	60.2
0°-60°	1249.8	87.4
0°-90°	1430.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1430.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	848	865	862	866	874	79
15°	730	747	759	787	811	204
25°	575	590	608	635	668	264
35°	406	425	445	485	520	253
45°	235	261	304	330	353	186
55°	149	166	181	185	182	134
65°	92	110	107	102	101	92
75°	48	60	57	51	48	52
85°	15	20	19	17	13	17
90°	0	0	0	0	0	

TEST NUMBER: P1058264

CATALOG NUMBER: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.7	878.7	878.7	878.7	878.7
2.5°	867.2	882.5	873.6	873.6	874.9
5°	848.1	864.7	862.1	865.9	873.6
7.5°	823.8	841.7	841.7	853.2	863.4
10°	797.1	814.9	817.5	835.3	850.6
12.5°	763.9	781.8	789.4	812.4	832.8
15°	729.5	747.3	758.8	786.9	811.1
17.5°	692.5	710.3	725.6	755.0	779.2
20°	655.5	672.1	691.2	716.7	743.5
22.5°	614.7	632.5	650.4	674.6	705.2
25°	575.2	590.5	608.3	635.1	668.3
27.5°	533.1	549.7	566.2	598.1	632.5
30°	492.3	508.8	526.7	559.9	595.6
32.5°	448.9	466.8	484.6	521.6	558.6
35°	405.5	424.7	445.1	484.6	520.3
37.5°	363.5	383.9	408.1	448.9	479.5
40°	320.1	341.8	372.4	408.1	437.4
42.5°	274.2	301.0	338.0	368.6	395.3
45°	234.7	261.4	303.5	330.3	353.3
47.5°	205.3	227.0	267.8	290.8	309.9
50°	183.6	200.2	237.2	253.8	266.5
52.5°	165.8	182.4	207.9	219.4	223.2
55°	149.2	165.8	181.1	184.9	182.4
57.5°	132.6	150.5	159.4	155.6	155.6
60°	118.6	137.7	140.3	135.2	135.2
62.5°	104.6	123.7	123.7	117.3	117.3
65°	91.8	109.7	107.1	102.0	100.7
67.5°	80.3	96.9	93.1	88.0	86.7
70°	68.9	84.2	80.3	74.0	72.7
72.5°	58.7	72.7	67.6	62.5	59.9
75°	48.5	59.9	57.4	51.0	48.5
77.5°	39.5	48.5	45.9	40.8	38.3
80°	30.6	38.3	37.0	31.9	29.3
82.5°	23.0	29.3	28.1	24.2	20.4
85°	15.3	20.4	19.1	16.6	12.8
87.5°	7.7	14.0	12.8	11.5	6.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058264
 CATALOG NUMBER: S122RDR-H1005D940-X4F0-XX-UDD-WVL-S

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	16.41	17.85	16.77	18.16	18.48	16.77	18.21	17.13	18.52	18.84
	3H	17.95	19.24	18.33	19.57	19.93	18.11	19.40	18.49	19.73	20.10
	4H	18.52	19.73	18.92	20.08	20.46	18.60	19.81	19.00	20.15	20.53
	6H	18.95	20.07	19.37	20.44	20.83	18.95	20.07	19.37	20.43	20.83
	8H	19.11	20.17	19.54	20.56	20.96	19.07	20.13	19.50	20.52	20.92
	12H	19.22	20.24	19.65	20.62	21.05	19.14	20.16	19.57	20.54	20.97
4H	2H	16.99	18.20	17.40	18.55	18.93	17.28	18.49	17.68	18.84	19.22
	3H	18.82	19.82	19.23	20.22	20.62	18.86	19.86	19.27	20.26	20.66
	4H	19.56	20.46	20.00	20.88	21.32	19.46	20.36	19.89	20.78	21.22
	6H	20.15	20.93	20.61	21.38	21.84	19.94	20.72	20.40	21.17	21.63
	8H	20.36	21.09	20.83	21.54	22.01	20.11	20.84	20.57	21.28	21.75
	12H	20.53	21.18	21.01	21.66	22.13	20.23	20.88	20.71	21.36	21.83
8H	4H	19.85	20.58	20.31	21.02	21.49	19.76	20.49	20.23	20.94	21.41
	6H	20.61	21.21	21.10	21.70	22.18	20.38	20.98	20.88	21.48	21.95
	8H	20.93	21.47	21.44	21.98	22.47	20.63	21.17	21.14	21.68	22.17
	12H	21.21	21.69	21.73	22.19	22.75	20.84	21.32	21.35	21.81	22.38
12H	4H	19.87	20.52	20.35	21.00	21.47	19.80	20.45	20.28	20.93	21.40
	6H	20.66	21.21	21.18	21.72	22.21	20.46	21.00	20.97	21.51	22.00
	8H	21.06	21.54	21.57	22.04	22.60	20.77	21.25	21.29	21.75	22.31