

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: P1058216

Luminaire Tested: S122RDR-H1005D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058216
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

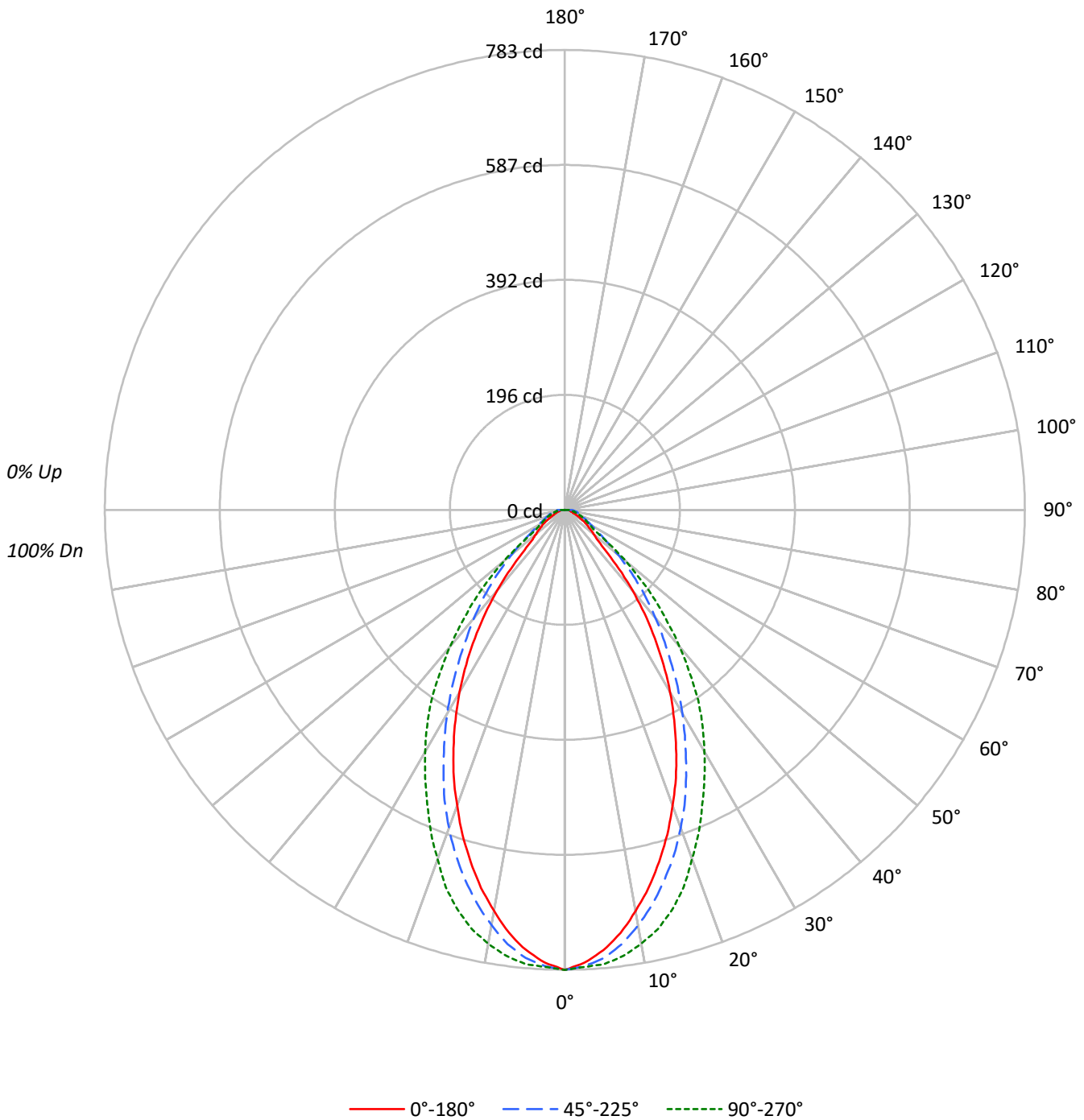
Lumens per Lamp: N/A
Luminaire Lumens: 944.9 lumens
Efficiency: N/A
Efficacy: 25.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14452	14452	14452
5°	13946	14187	14374
10°	12996	13457	14053
15°	11842	12478	13472
20°	10527	11323	12428
25°	9121	9944	11269
30°	7636	8529	10129
35°	6021	7064	8918
40°	4317	5779	7311
45°	2526	4564	5658
50°	1826	3319	3815
55°	1535	2371	1998
60°	1225	1919	1705
65°	1009	1703	1576
70°	858	1635	1484
75°	827	1754	1440
80°	924	2147	1541
85°	1524	3366	2138

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5658 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	7.6
10°-20°	183.9	19.5
20°-30°	226.0	23.9
30°-40°	199.8	21.1
40°-50°	127.5	13.5
50°-60°	62.2	6.6
60°-70°	37.1	3.9
70°-80°	23.7	2.5
80°-90°	13.0	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°	481.6	51.0
0°-40°	681.4	72.1
0°-60°	871.1	92.2
0°-90°	944.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	944.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	753	769	766	769	776	70
15°	620	637	653	682	705	173
25°	448	464	488	519	554	205
35°	267	282	314	357	396	166
45°	97	124	175	196	217	82
55°	48	64	74	69	62	43
65°	23	43	39	36	36	23
75°	12	26	25	22	20	13
85°	7	14	16	14	10	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	783.2	783.2	783.2	783.2	783.2
2.5°	771.7	786.1	777.4	777.4	778.9
5°	752.9	768.8	765.9	768.8	776.0
7.5°	726.9	742.8	745.7	757.2	765.9
10°	693.6	709.5	718.2	737.0	750.0
12.5°	659.0	674.8	687.9	712.4	731.2
15°	619.9	637.3	653.2	682.1	705.2
17.5°	579.5	596.8	617.0	645.9	673.4
20°	536.1	552.0	576.6	604.0	632.9
22.5°	494.2	508.7	534.7	560.7	595.4
25°	448.0	463.9	488.4	518.8	553.5
27.5°	403.2	419.1	443.6	478.3	514.4
30°	358.4	372.8	400.3	436.4	475.4
32.5°	312.1	326.6	356.9	395.9	436.4
35°	267.3	281.8	313.6	356.9	395.9
37.5°	222.5	238.4	274.6	315.0	348.3
40°	179.2	198.0	239.9	274.6	303.5
42.5°	135.8	161.8	206.6	235.5	258.7
45°	96.8	124.3	174.9	196.5	216.8
47.5°	73.7	95.4	144.5	160.4	173.4
50°	63.6	78.0	115.6	127.2	132.9
52.5°	54.9	69.4	92.5	96.8	93.9
55°	47.7	63.6	73.7	69.4	62.1
57.5°	40.5	59.2	60.7	52.0	53.5
60°	33.2	53.5	52.0	44.8	46.2
62.5°	27.5	49.1	44.8	40.5	40.5
65°	23.1	43.4	39.0	36.1	36.1
67.5°	18.8	39.0	34.7	31.8	31.8
70°	15.9	34.7	30.3	27.5	27.5
72.5°	14.5	30.3	27.5	24.6	24.6
75°	11.6	26.0	24.6	21.7	20.2
77.5°	10.1	21.7	21.7	20.2	17.3
80°	8.7	18.8	20.2	17.3	14.5
82.5°	8.7	17.3	17.3	15.9	11.6
85°	7.2	14.5	15.9	14.5	10.1
87.5°	4.3	13.0	13.0	11.6	7.2
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	11.30	12.58	11.67	12.90	13.21	10.83	12.11	11.20	12.42	12.74
	3H	12.48	13.62	12.86	13.95	14.32	12.40	13.53	12.78	13.86	14.23
	4H	12.91	13.97	13.32	14.33	14.71	13.08	14.14	13.48	14.49	14.88
	6H	13.26	14.23	13.67	14.61	15.00	13.73	14.70	14.14	15.07	15.47
	8H	13.46	14.38	13.89	14.77	15.18	14.02	14.94	14.45	15.33	15.74
	12H	13.67	14.56	14.11	14.94	15.37	14.33	15.22	14.77	15.60	16.03
4H	2H	11.81	12.87	12.21	13.22	13.60	11.43	12.49	11.83	12.84	13.23
	3H	13.45	14.33	13.87	14.73	15.14	13.23	14.11	13.65	14.51	14.92
	4H	14.22	15.00	14.65	15.42	15.87	14.08	14.86	14.51	15.28	15.72
	6H	14.82	15.50	15.28	15.95	16.41	14.93	15.61	15.39	16.06	16.52
	8H	15.12	15.76	15.59	16.20	16.68	15.32	15.96	15.79	16.40	16.88
	12H	15.43	16.00	15.92	16.48	16.95	15.76	16.32	16.25	16.81	17.28
8H	4H	14.64	15.27	15.11	15.72	16.19	14.53	15.17	15.00	15.62	16.09
	6H	15.59	16.11	16.09	16.60	17.09	15.64	16.16	16.14	16.66	17.14
	8H	16.13	16.60	16.65	17.12	17.61	16.22	16.69	16.74	17.20	17.70
	12H	16.70	17.11	17.21	17.61	18.18	16.89	17.31	17.41	17.80	18.37
12H	4H	14.71	15.27	15.19	15.75	16.23	14.62	15.18	15.10	15.66	16.14
	6H	15.77	16.24	16.29	16.75	17.25	15.82	16.29	16.35	16.81	17.30
	8H	16.46	16.88	16.98	17.37	17.94	16.54	16.95	17.05	17.45	18.02