

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: P1058261

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058261
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-H1005D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

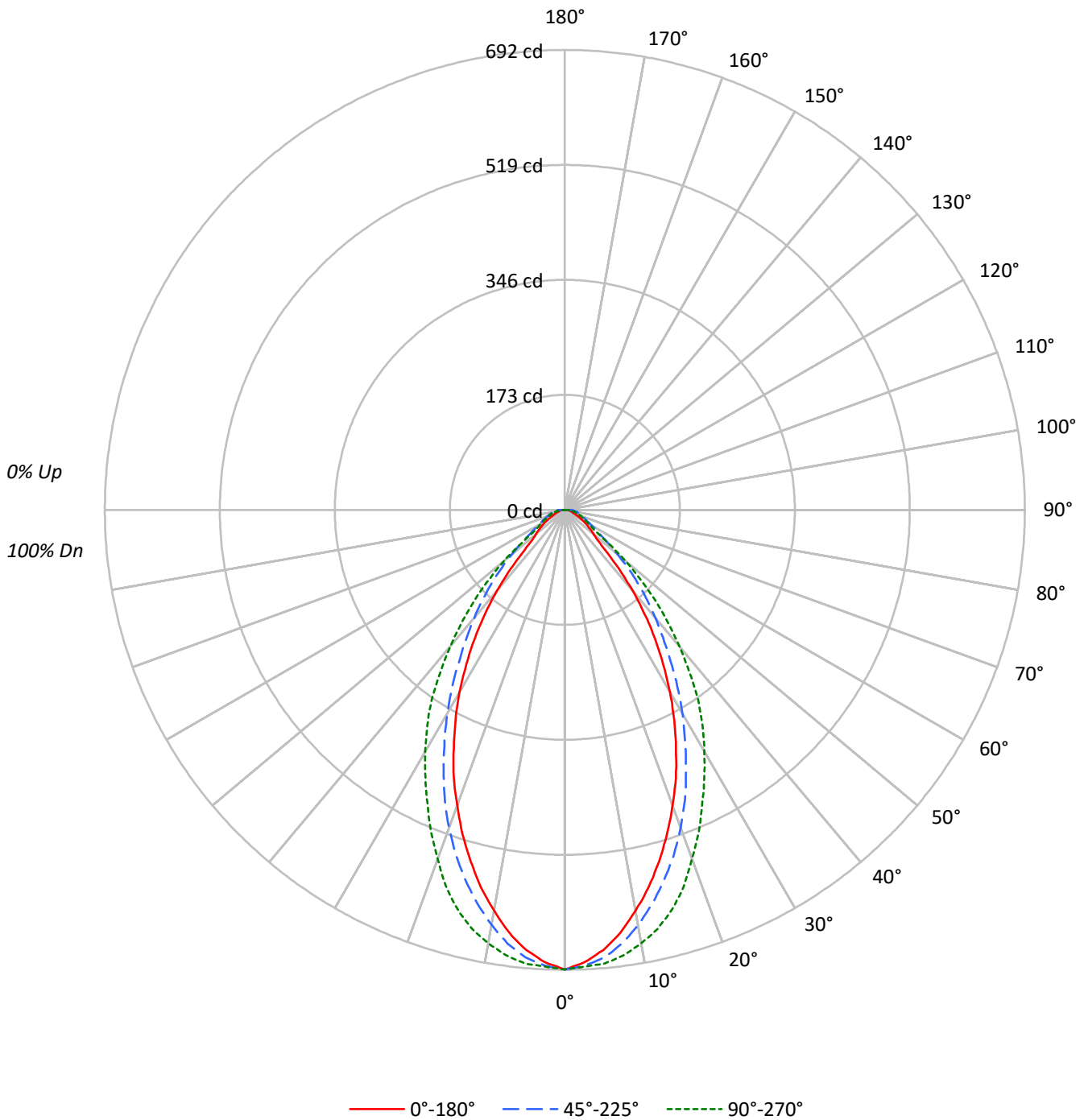
Lumens per Lamp: N/A
Luminaire Lumens: 834.3 lumens
Efficiency: N/A
Efficacy: 22.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1058261

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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°	12762	12762	12762
5°	12314	12527	12692
10°	11476	11883	12408
15°	10457	11017	11896
20°	9296	9997	10975
25°	8054	8781	9950
30°	6742	7532	8945
35°	5318	6238	7875
40°	3811	5102	6456
45°	2231	4029	4995
50°	1610	2931	3370
55°	1354	2094	1766
60°	1081	1694	1506
65°	891	1506	1393
70°	755	1446	1306
75°	727	1547	1276
80°	818	1902	1360
85°	1355	2964	1884

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4995 cd/sqm



TEST NUMBER: P1058261

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	7.6
10°-20°	162.3	19.5
20°-30°	199.5	23.9
30°-40°	176.4	21.1
40°-50°	112.6	13.5
50°-60°	54.9	6.6
60°-70°	32.7	3.9
70°-80°	20.9	2.5
80°-90°	11.5	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°	425.3	51.0
0°-40°	601.7	72.1
0°-60°	769.2	92.2
0°-90°	834.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	834.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	665	679	676	679	685	62
15°	547	563	577	602	623	153
25°	396	410	431	458	489	181
35°	236	249	277	315	350	147
45°	86	110	154	174	191	72
55°	42	56	65	61	55	38
65°	20	38	34	32	32	20
75°	10	23	22	19	18	11
85°	6	13	14	13	9	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	691.6	691.6	691.6	691.6	691.6
2.5°	681.4	694.1	686.5	686.5	687.8
5°	664.8	678.8	676.3	678.8	685.2
7.5°	641.8	655.9	658.4	668.6	676.3
10°	612.5	626.5	634.2	650.8	662.2
12.5°	581.9	595.9	607.4	629.1	645.7
15°	547.4	562.7	576.7	602.3	622.7
17.5°	511.7	527.0	544.8	570.4	594.6
20°	473.4	487.4	509.1	533.4	558.9
22.5°	436.4	449.1	472.1	495.1	525.7
25°	395.6	409.6	431.3	458.1	488.7
27.5°	356.0	370.0	391.7	422.4	454.3
30°	316.4	329.2	353.5	385.3	419.8
32.5°	275.6	288.4	315.2	349.6	385.3
35°	236.1	248.8	276.9	315.2	349.6
37.5°	196.5	210.5	242.4	278.2	307.5
40°	158.2	174.8	211.8	242.4	268.0
42.5°	119.9	142.9	182.5	208.0	228.4
45°	85.5	109.7	154.4	173.5	191.4
47.5°	65.1	84.2	127.6	141.6	153.1
50°	56.1	68.9	102.1	112.3	117.4
52.5°	48.5	61.2	81.7	85.5	82.9
55°	42.1	56.1	65.1	61.2	54.9
57.5°	35.7	52.3	53.6	45.9	47.2
60°	29.3	47.2	45.9	39.6	40.8
62.5°	24.2	43.4	39.6	35.7	35.7
65°	20.4	38.3	34.5	31.9	31.9
67.5°	16.6	34.5	30.6	28.1	28.1
70°	14.0	30.6	26.8	24.2	24.2
72.5°	12.8	26.8	24.2	21.7	21.7
75°	10.2	23.0	21.7	19.1	17.9
77.5°	8.9	19.1	19.1	17.9	15.3
80°	7.7	16.6	17.9	15.3	12.8
82.5°	7.7	15.3	15.3	14.0	10.2
85°	6.4	12.8	14.0	12.8	8.9
87.5°	3.8	11.5	11.5	10.2	6.4
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	10.87	12.15	11.24	12.46	12.78	10.40	11.68	10.76	11.99	12.30
	3H	12.05	13.19	12.43	13.52	13.88	11.96	13.10	12.34	13.43	13.79
	4H	12.48	13.54	12.88	13.89	14.28	12.64	13.71	13.05	14.06	14.44
	6H	12.83	13.80	13.24	14.17	14.57	13.29	14.27	13.71	14.64	15.04
	8H	13.02	13.95	13.45	14.34	14.75	13.58	14.51	14.01	14.90	15.30
	12H	13.24	14.13	13.68	14.51	14.94	13.90	14.78	14.33	15.17	15.60
4H	2H	11.38	12.44	11.78	12.79	13.17	11.00	12.06	11.40	12.41	12.80
	3H	13.02	13.90	13.44	14.30	14.71	12.80	13.67	13.21	14.08	14.48
	4H	13.79	14.57	14.22	14.99	15.44	13.64	14.42	14.07	14.84	15.29
	6H	14.39	15.07	14.85	15.52	15.98	14.50	15.18	14.96	15.62	16.09
	8H	14.69	15.33	15.16	15.77	16.24	14.89	15.52	15.36	15.97	16.44
	12H	15.01	15.57	15.49	16.05	16.53	15.32	15.89	15.81	16.37	16.84
8H	4H	14.20	14.84	14.67	15.29	15.76	14.10	14.73	14.57	15.18	15.65
	6H	15.15	15.68	15.66	16.17	16.65	15.21	15.73	15.71	16.23	16.71
	8H	15.70	16.17	16.22	16.69	17.18	15.78	16.25	16.31	16.77	17.26
	12H	16.27	16.68	16.78	17.18	17.75	16.45	16.87	16.97	17.36	17.94
12H	4H	14.28	14.84	14.76	15.32	15.80	14.18	14.74	14.67	15.23	15.70
	6H	15.34	15.81	15.86	16.32	16.81	15.39	15.86	15.91	16.38	16.87
	8H	16.03	16.45	16.55	16.94	17.51	16.10	16.52	16.62	17.01	17.58