

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058213

Luminaire Tested: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058213  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

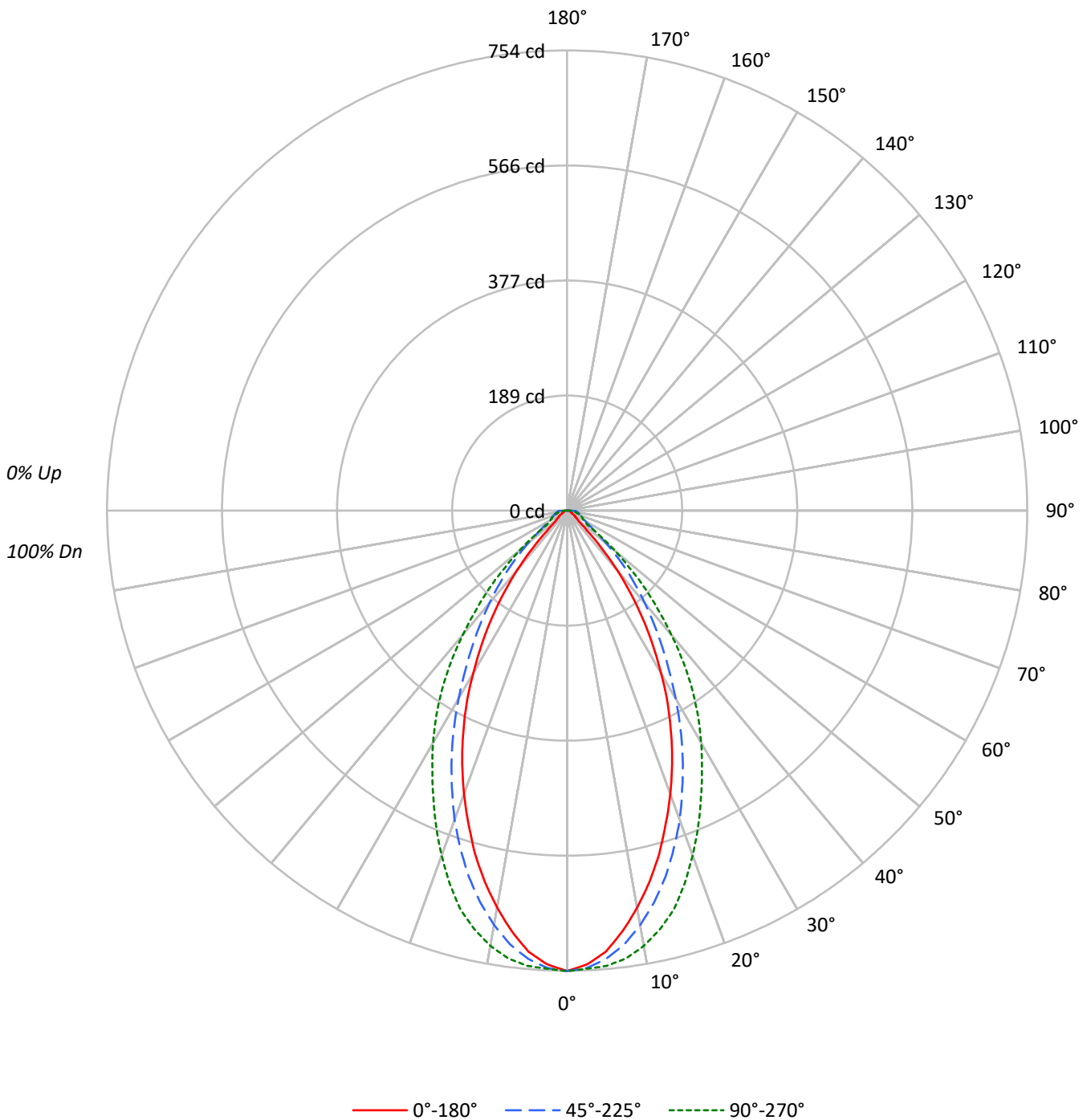
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 813.2 lumens  
Efficiency: N/A  
Efficacy: 22.3 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
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 (A<sub>in</sub>): 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: P1058213

CATALOG NUMBER: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1058213

CATALOG NUMBER: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42					42			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13921	13921	13921
5°	13438	13653	13868
10°	12376	12917	13568
15°	11126	11873	12922
20°	9706	10586	11806
25°	8209	9121	10565
30°	6558	7575	9362
35°	4850	6089	8042
40°	3064	4769	6405
45°	1206	3583	4715
50°	623	2406	2905
55°	512	1580	1303
60°	373	1281	1174
65°	314	1201	1201
70°	313	1246	1171
75°	414	1440	1233
80°	616	1838	1381
85°	910	3070	1842

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 6134 cd/sqm



TEST NUMBER: P1058213

CATALOG NUMBER: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.0	8.5
10°-20°	174.3	21.4
20°-30°	207.1	25.5
30°-40°	172.3	21.2
40°-50°	96.2	11.8
50°-60°	38.9	4.8
60°-70°	24.9	3.1
70°-80°	18.6	2.3
80°-90°	11.9	1.5
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°	450.4	55.4
0°-40°	622.7	76.6
0°-60°	757.8	93.2
0°-90°	813.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	813.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	726	738	737	743	749	67
15°	582	600	622	653	676	162
25°	403	419	448	483	519	184
35°	215	236	270	315	357	134
45°	46	78	137	160	181	43
55°	16	33	49	48	40	14
65°	7	29	28	26	28	7
75°	6	20	20	19	17	6
85°	4	13	14	13	9	5
90°	0	0	0	0	0	



TEST NUMBER: P1058213

CATALOG NUMBER: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	754.4	754.4	754.4	754.4	754.4
2.5°	744.3	755.9	750.1	750.1	751.5
5°	725.5	738.5	737.1	742.9	748.7
7.5°	695.2	709.6	716.9	729.9	740.0
10°	660.5	676.4	689.4	709.6	724.1
12.5°	622.9	638.8	657.6	683.6	702.4
15°	582.4	599.8	621.5	653.3	676.4
17.5°	537.6	556.4	581.0	615.7	640.3
20°	494.3	513.1	539.1	573.8	601.2
22.5°	449.5	465.4	492.8	527.5	560.8
25°	403.2	419.1	448.0	482.7	518.9
27.5°	357.0	372.9	401.8	437.9	478.4
30°	307.8	325.2	355.5	396.0	439.4
32.5°	261.6	278.9	310.7	355.5	398.9
35°	215.3	235.6	270.3	315.1	357.0
37.5°	170.5	193.7	232.7	274.6	312.2
40°	127.2	151.8	198.0	234.1	265.9
42.5°	83.8	112.7	166.2	196.6	221.1
45°	46.2	78.0	137.3	160.4	180.7
47.5°	26.0	50.6	108.4	127.2	138.7
50°	21.7	37.6	83.8	96.8	101.2
52.5°	17.3	34.7	63.6	70.8	67.9
55°	15.9	33.2	49.1	47.7	40.5
57.5°	13.0	33.2	39.0	34.7	34.7
60°	10.1	31.8	34.7	30.4	31.8
62.5°	8.7	30.4	31.8	28.9	28.9
65°	7.2	28.9	27.5	26.0	27.5
67.5°	5.8	26.0	26.0	24.6	24.6
70°	5.8	24.6	23.1	21.7	21.7
72.5°	5.8	21.7	21.7	20.2	20.2
75°	5.8	20.2	20.2	18.8	17.3
77.5°	5.8	17.3	18.8	17.3	15.9
80°	5.8	15.9	17.3	15.9	13.0
82.5°	5.8	14.5	15.9	14.5	11.6
85°	4.3	13.0	14.5	13.0	8.7
87.5°	4.3	13.0	14.5	11.6	7.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058213

CATALOG NUMBER: S122RDRP-H1005D840-X4F0-XX-UDD-BVL-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	7.51	8.73	7.87	9.04	9.35	8.59	9.81	8.96	10.12	10.44
	3H	8.84	9.93	9.23	10.26	10.63	10.62	11.71	11.01	12.04	12.41
	4H	9.42	10.43	9.82	10.78	11.17	11.58	12.59	11.98	12.94	13.32
	6H	9.99	10.92	10.40	11.29	11.68	12.52	13.45	12.94	13.82	14.22
	8H	10.31	11.19	10.75	11.59	11.99	12.97	13.85	13.40	14.24	14.65
	12H	10.62	11.46	11.05	11.84	12.27	13.40	14.24	13.83	14.62	15.05
4H	2H	8.48	9.49	8.88	9.84	10.22	9.27	10.28	9.68	10.63	11.02
	3H	10.51	11.34	10.92	11.74	12.15	11.55	12.39	11.97	12.79	13.20
	4H	11.58	12.33	12.02	12.75	13.20	12.70	13.45	13.14	13.87	14.31
	6H	12.46	13.10	12.92	13.55	14.02	13.87	14.52	14.33	14.96	15.43
	8H	12.87	13.48	13.34	13.92	14.40	14.43	15.04	14.90	15.49	15.96
	12H	13.25	13.78	13.74	14.27	14.74	14.98	15.51	15.47	16.00	16.47
8H	4H	12.35	12.96	12.83	13.41	13.88	13.25	13.86	13.72	14.30	14.78
	6H	13.70	14.19	14.20	14.69	15.17	14.70	15.20	15.21	15.70	16.18
	8H	14.42	14.86	14.94	15.38	15.87	15.47	15.92	15.99	16.43	16.93
	12H	15.11	15.50	15.62	16.00	16.57	16.26	16.65	16.78	17.15	17.72
12H	4H	12.51	13.05	13.00	13.53	14.00	13.36	13.89	13.84	14.38	14.85
	6H	14.02	14.46	14.54	14.98	15.47	14.93	15.38	15.45	15.89	16.38
	8H	14.92	15.32	15.44	15.81	16.39	15.84	16.23	16.36	16.73	17.30