

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: P1058273

Luminaire Tested: S122RDR-H1005D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058273  
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-H1005D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

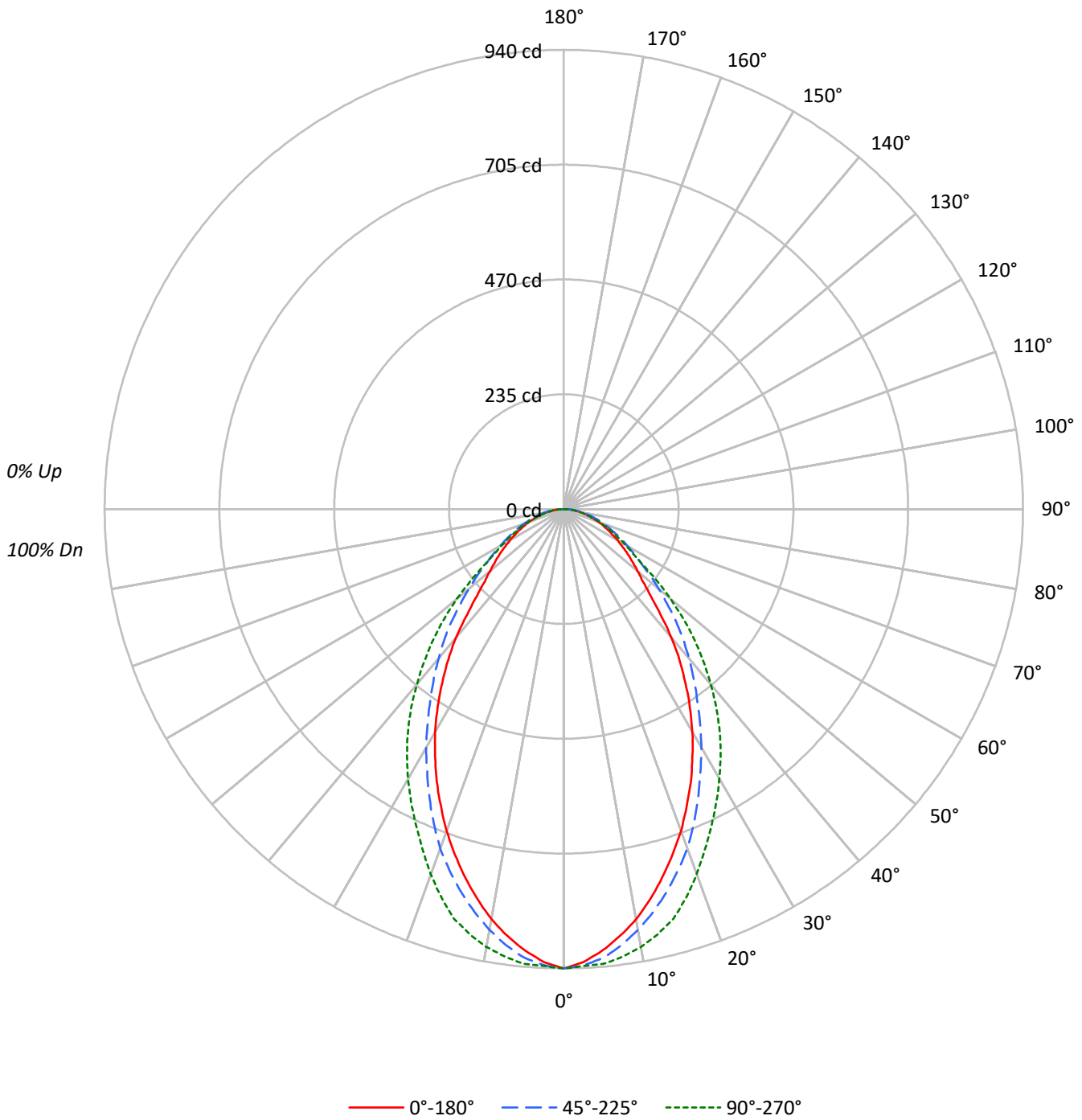
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1530.8 lumens  
Efficiency: N/A  
Efficacy: 41.9 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

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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	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°	17347	17347	17347
5°	16806	17084	17312
10°	15977	16387	17051
15°	14908	15508	16578
20°	13771	14521	15619
25°	12528	13250	14555
30°	11222	12007	13577
35°	9774	10727	12540
40°	8250	9597	11273
45°	6550	8473	9862
50°	5641	7286	8187
55°	5134	6232	6277
60°	4683	5539	5336
65°	4288	5004	4707
70°	3976	4640	4197
75°	3693	4378	3693
80°	3475	4208	3337
85°	3472	4340	2879

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9862 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.8	5.7
10°-20°	229.4	15.0
20°-30°	301.9	19.7
30°-40°	303.6	19.8
40°-50°	246.0	16.1
50°-60°	169.5	11.1
60°-70°	110.9	7.2
70°-80°	61.8	4.0
80°-90°	20.9	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°	618.1	40.4
0°-40°	921.7	60.2
0°-60°	1337.2	87.4
0°-90°	1530.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	907	925	922	926	935	85
15°	780	800	812	842	868	219
25°	615	632	651	680	715	282
35°	434	454	476	518	557	271
45°	251	280	325	353	378	199
55°	160	177	194	198	195	143
65°	98	117	115	109	108	98
75°	52	64	61	55	52	55
85°	16	22	20	18	14	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	940.1	940.1	940.1	940.1	940.1
2.5°	927.8	944.2	934.6	934.6	936.0
5°	907.3	925.1	922.3	926.4	934.6
7.5°	881.4	900.5	900.5	912.8	923.7
10°	852.7	871.8	874.6	893.7	910.0
12.5°	817.3	836.4	844.6	869.1	890.9
15°	780.4	799.5	811.8	841.8	867.8
17.5°	740.9	760.0	776.3	807.7	833.6
20°	701.3	719.0	739.5	766.8	795.4
22.5°	657.6	676.7	695.8	721.8	754.5
25°	615.3	631.7	650.8	679.5	714.9
27.5°	570.3	588.1	605.8	639.9	676.7
30°	526.7	544.4	563.5	599.0	637.2
32.5°	480.3	499.4	518.5	558.0	597.6
35°	433.9	454.3	476.2	518.5	556.7
37.5°	388.9	410.7	436.6	480.3	513.0
40°	342.5	365.7	398.4	436.6	468.0
42.5°	293.3	322.0	361.6	394.3	423.0
45°	251.0	279.7	324.7	353.4	377.9
47.5°	219.7	242.9	286.5	311.1	331.5
50°	196.5	214.2	253.8	271.5	285.2
52.5°	177.4	195.1	222.4	234.7	238.8
55°	159.6	177.4	193.7	197.8	195.1
57.5°	141.9	161.0	170.5	166.5	166.5
60°	126.9	147.4	150.1	144.6	144.6
62.5°	111.9	132.3	132.3	125.5	125.5
65°	98.2	117.3	114.6	109.2	107.8
67.5°	86.0	103.7	99.6	94.1	92.8
70°	73.7	90.0	86.0	79.1	77.8
72.5°	62.8	77.8	72.3	66.9	64.1
75°	51.8	64.1	61.4	54.6	51.8
77.5°	42.3	51.8	49.1	43.7	40.9
80°	32.7	40.9	39.6	34.1	31.4
82.5°	24.6	31.4	30.0	25.9	21.8
85°	16.4	21.8	20.5	17.7	13.6
87.5°	8.2	15.0	13.6	12.3	6.8
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	16.64	18.08	17.01	18.40	18.71	17.00	18.44	17.37	18.76	19.07
	3H	18.19	19.48	18.57	19.81	20.17	18.35	19.64	18.73	19.97	20.33
	4H	18.76	19.97	19.16	20.32	20.70	18.83	20.04	19.23	20.39	20.77
	6H	19.19	20.30	19.60	20.67	21.06	19.19	20.30	19.60	20.67	21.06
	8H	19.34	20.40	19.77	20.79	21.20	19.30	20.36	19.73	20.75	21.15
	12H	19.46	20.47	19.89	20.85	21.28	19.38	20.39	19.81	20.77	21.20
4H	2H	17.23	18.44	17.63	18.79	19.17	17.52	18.73	17.92	19.08	19.46
	3H	19.05	20.05	19.46	20.45	20.86	19.09	20.09	19.50	20.49	20.90
	4H	19.80	20.70	20.23	21.12	21.56	19.70	20.60	20.13	21.01	21.45
	6H	20.38	21.17	20.84	21.61	22.07	20.18	20.96	20.64	21.40	21.87
	8H	20.59	21.33	21.06	21.77	22.24	20.34	21.07	20.81	21.52	21.99
	12H	20.76	21.41	21.25	21.89	22.37	20.46	21.11	20.94	21.59	22.07
8H	4H	20.08	20.81	20.55	21.26	21.73	20.00	20.73	20.46	21.17	21.64
	6H	20.84	21.44	21.34	21.94	22.41	20.61	21.22	21.11	21.71	22.19
	8H	21.16	21.70	21.68	22.22	22.71	20.86	21.40	21.38	21.92	22.41
	12H	21.45	21.93	21.96	22.42	22.99	21.07	21.55	21.58	22.04	22.61
12H	4H	20.10	20.75	20.59	21.23	21.71	20.03	20.68	20.51	21.16	21.63
	6H	20.90	21.44	21.41	21.95	22.44	20.69	21.23	21.21	21.75	22.23
	8H	21.30	21.78	21.81	22.27	22.84	21.01	21.49	21.52	21.98	22.55