

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: P1058012

Luminaire Tested: S122RDRP-S485D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058012  
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: S122RDRP-S485D935-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

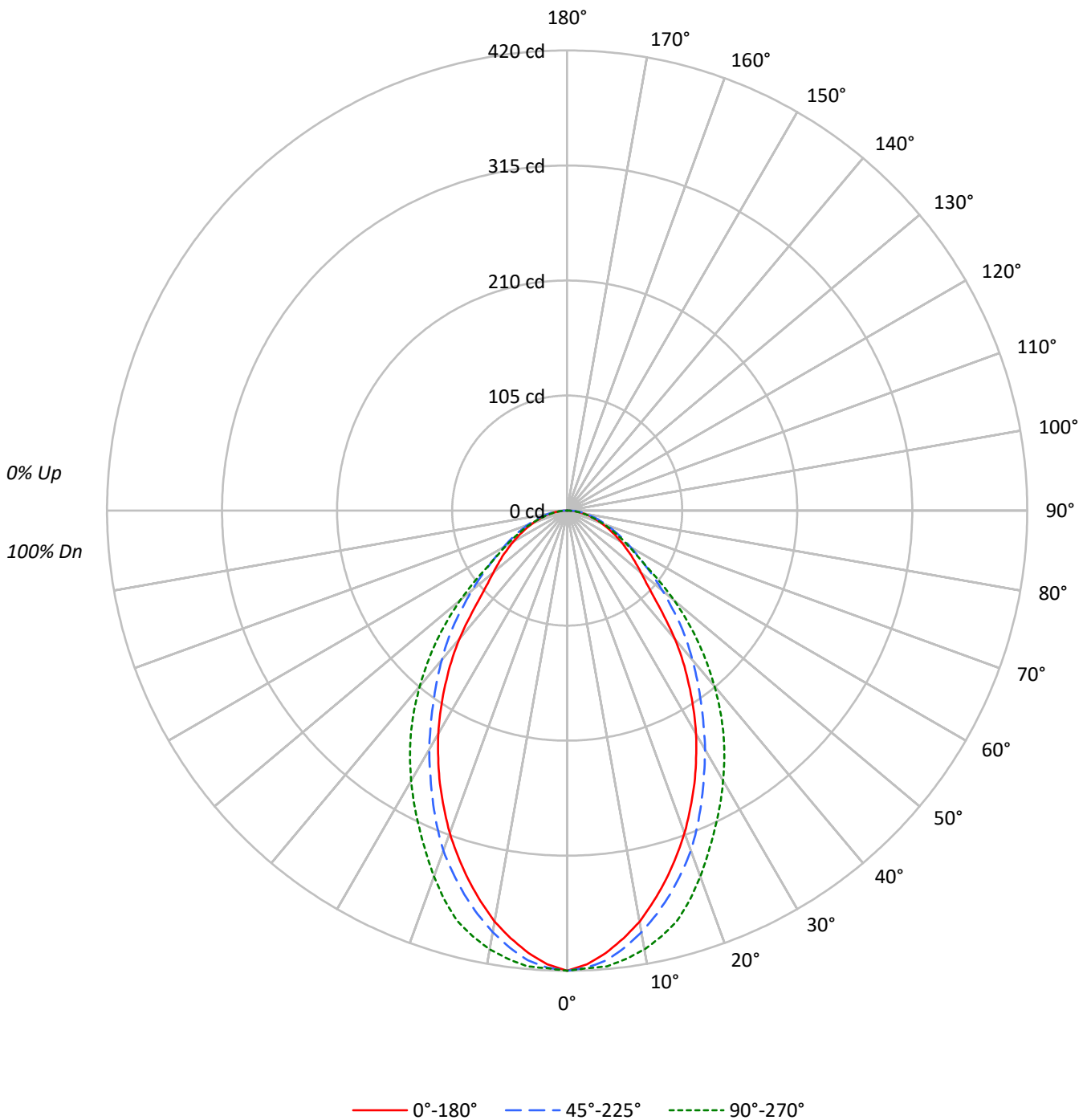
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 683.9 lumens  
Efficiency: N/A  
Efficacy: 34.9 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): 19.6  
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

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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				33

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

	0°	45°	90°
0°	7750	7750	7750
5°	7507	7631	7733
10°	7139	7321	7619
15°	6661	6929	7406
20°	6152	6488	6979
25°	5597	5919	6503
30°	5014	5363	6066
35°	4366	4791	5602
40°	3685	4288	5037
45°	2928	3786	4405
50°	2520	3255	3657
55°	2294	2786	2805
60°	2093	2473	2384
65°	1917	2236	2105
70°	1775	2072	1872
75°	1654	1953	1654
80°	1551	1881	1488
85°	1546	1927	1291

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4405 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.8	5.7
10°-20°	102.5	15.0
20°-30°	134.9	19.7
30°-40°	135.6	19.8
40°-50°	109.9	16.1
50°-60°	75.7	11.1
60°-70°	49.6	7.2
70°-80°	27.6	4.0
80°-90°	9.3	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°	276.1	40.4
0°-40°	411.7	60.2
0°-60°	597.4	87.4
0°-90°	683.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	683.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	405	413	412	414	418	38
15°	349	357	363	376	388	98
25°	275	282	291	304	319	126
35°	194	203	213	232	249	121
45°	112	125	145	158	169	89
55°	71	79	87	88	87	64
65°	44	52	51	49	48	44
75°	23	29	27	24	23	25
85°	7	10	9	8	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	420.0	420.0	420.0	420.0	420.0
2.5°	414.5	421.8	417.5	417.5	418.1
5°	405.3	413.3	412.0	413.9	417.5
7.5°	393.8	402.3	402.3	407.8	412.7
10°	381.0	389.5	390.7	399.2	406.6
12.5°	365.1	373.6	377.3	388.3	398.0
15°	348.7	357.2	362.7	376.1	387.7
17.5°	331.0	339.5	346.8	360.8	372.4
20°	313.3	321.2	330.4	342.6	355.4
22.5°	293.8	302.3	310.9	322.4	337.1
25°	274.9	282.2	290.7	303.5	319.4
27.5°	254.8	262.7	270.6	285.9	302.3
30°	235.3	243.2	251.7	267.6	284.7
32.5°	214.6	223.1	231.6	249.3	267.0
35°	193.8	203.0	212.7	231.6	248.7
37.5°	173.7	183.5	195.0	214.6	229.2
40°	153.0	163.4	178.0	195.0	209.1
42.5°	131.0	143.8	161.5	176.2	189.0
45°	112.2	125.0	145.1	157.9	168.8
47.5°	98.1	108.5	128.0	139.0	148.1
50°	87.8	95.7	113.4	121.3	127.4
52.5°	79.2	87.2	99.4	104.8	106.7
55°	71.3	79.2	86.6	88.4	87.2
57.5°	63.4	71.9	76.2	74.4	74.4
60°	56.7	65.8	67.0	64.6	64.6
62.5°	50.0	59.1	59.1	56.1	56.1
65°	43.9	52.4	51.2	48.8	48.2
67.5°	38.4	46.3	44.5	42.1	41.4
70°	32.9	40.2	38.4	35.4	34.7
72.5°	28.0	34.7	32.3	29.9	28.6
75°	23.2	28.6	27.4	24.4	23.2
77.5°	18.9	23.2	21.9	19.5	18.3
80°	14.6	18.3	17.7	15.2	14.0
82.5°	11.0	14.0	13.4	11.6	9.8
85°	7.3	9.8	9.1	7.9	6.1
87.5°	3.7	6.7	6.1	5.5	3.0
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	13.84	15.28	14.21	15.60	15.91	14.21	15.65	14.57	15.96	16.27
	3H	15.39	16.68	15.76	17.00	17.37	15.55	16.84	15.93	17.17	17.53
	4H	15.96	17.16	16.36	17.51	17.89	16.03	17.24	16.43	17.59	17.97
	6H	16.39	17.50	16.80	17.87	18.26	16.39	17.50	16.80	17.87	18.26
	8H	16.54	17.60	16.97	17.99	18.39	16.50	17.56	16.93	17.95	18.36
	12H	16.66	17.67	17.09	18.05	18.48	16.58	17.59	17.01	17.98	18.41
4H	2H	14.43	15.64	14.83	15.99	16.37	14.72	15.93	15.12	16.28	16.66
	3H	16.25	17.25	16.66	17.65	18.05	16.29	17.29	16.70	17.70	18.10
	4H	17.00	17.90	17.43	18.31	18.75	16.90	17.80	17.33	18.22	18.66
	6H	17.58	18.37	18.04	18.81	19.27	17.38	18.16	17.84	18.60	19.07
	8H	17.79	18.53	18.26	18.97	19.44	17.54	18.27	18.01	18.72	19.19
	12H	17.96	18.61	18.45	19.09	19.57	17.66	18.32	18.15	18.80	19.27
8H	4H	17.28	18.01	17.74	18.46	18.92	17.20	17.93	17.66	18.37	18.84
	6H	18.04	18.64	18.54	19.13	19.61	17.81	18.42	18.31	18.91	19.39
	8H	18.36	18.90	18.88	19.42	19.91	18.06	18.61	18.58	19.12	19.61
	12H	18.65	19.13	19.16	19.62	20.19	18.27	18.75	18.79	19.25	19.81
12H	4H	17.30	17.95	17.78	18.43	18.90	17.23	17.88	17.72	18.36	18.84
	6H	18.10	18.64	18.61	19.15	19.64	17.89	18.43	18.41	18.95	19.44
	8H	18.50	18.98	19.01	19.47	20.04	18.21	18.69	18.72	19.18	19.75