

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: P1058415

Luminaire Tested: S122RDR-H485D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058415  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D935-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

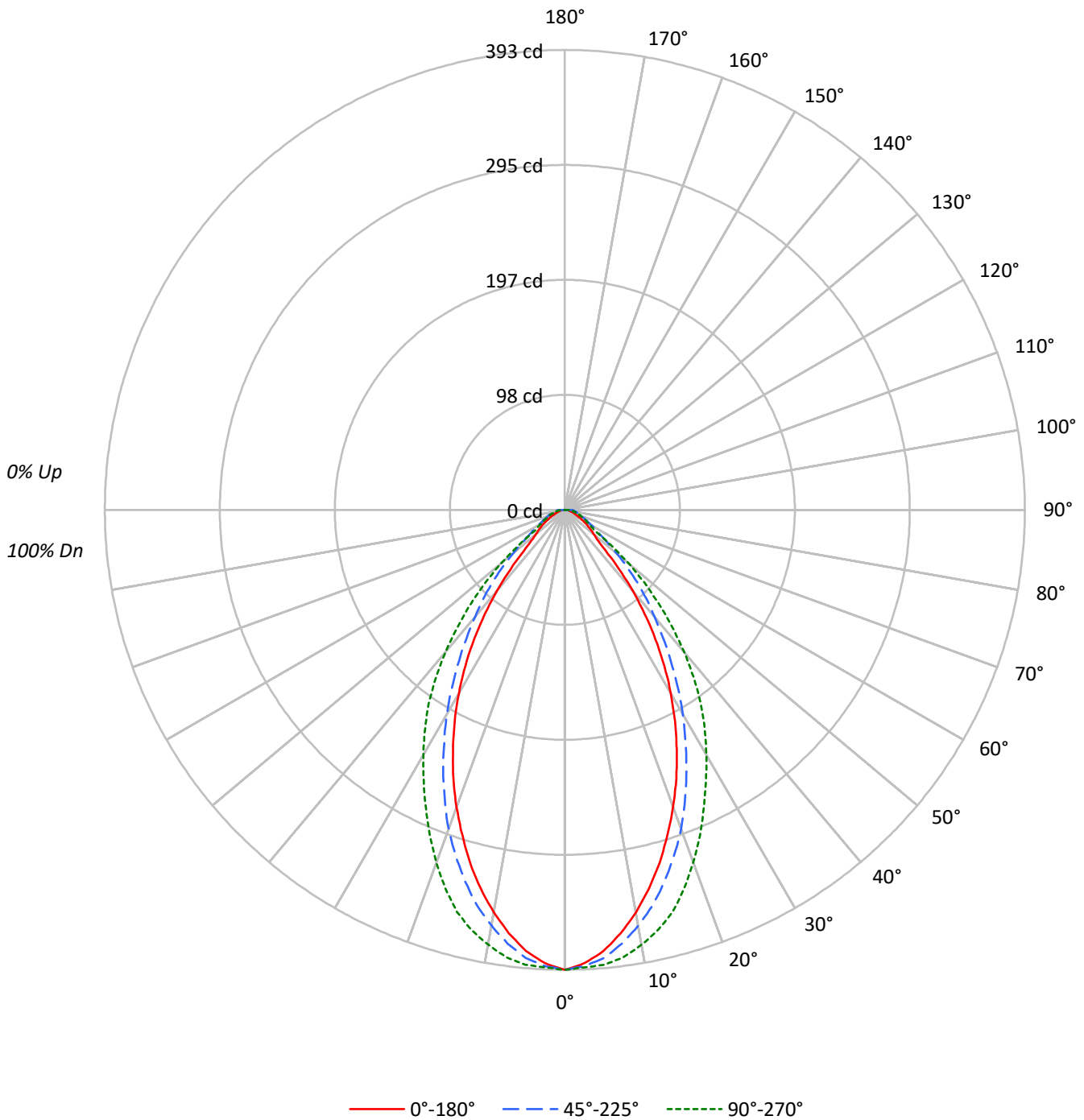
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 476.7 lumens  
Efficiency: N/A  
Efficacy: 27.4 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	102	99	97	98	96	94	94	93	91	89			89	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80			80	
3	97	89	83	78	95	88	82	77	85	80	76	83	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	67	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	45	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°	7252	7252	7252
5°	7009	7118	7226
10°	6543	6762	7070
15°	5970	6281	6795
20°	5310	5701	6296
25°	4601	5007	5719
30°	3857	4293	5152
35°	3039	3552	4566
40°	2166	2869	3813
45°	1281	2270	2957
50°	921	1642	2012
55°	769	1184	1013
60°	624	948	864
65°	511	843	790
70°	442	820	755
75°	414	834	749
80°	436	988	808
85°	614	1609	995

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2957 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.0	7.6
10°-20°	92.6	19.4
20°-30°	114.3	24.0
30°-40°	101.6	21.3
40°-50°	64.9	13.6
50°-60°	31.1	6.5
60°-70°	18.3	3.8
70°-80°	11.7	2.4
80°-90°	6.2	1.3
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°	242.9	51.0
0°-40°	344.5	72.3
0°-60°	440.6	92.4
0°-90°	476.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	476.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	378	386	384	387	390	35
15°	312	320	329	344	356	87
25°	226	235	246	263	281	103
35°	135	145	158	182	203	84
45°	49	64	87	101	113	41
55°	24	31	37	36	32	22
65°	12	21	19	18	18	12
75°	6	13	12	11	10	6
85°	3	7	8	6	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	393.0	393.0	393.0	393.0	393.0
2.5°	387.8	394.2	390.1	390.1	391.3
5°	378.4	385.5	384.3	386.6	390.1
7.5°	365.0	372.6	373.8	380.2	385.5
10°	349.2	357.4	360.9	370.3	377.3
12.5°	331.7	339.9	346.3	358.0	367.9
15°	312.5	320.0	328.8	344.0	355.7
17.5°	291.4	301.4	310.1	325.9	339.3
20°	270.4	279.7	290.3	305.4	320.6
22.5°	248.8	257.6	268.1	283.8	301.4
25°	226.0	234.8	245.9	263.4	280.9
27.5°	203.8	212.6	223.1	242.4	261.1
30°	181.0	189.8	201.5	221.3	241.8
32.5°	158.3	167.6	179.3	200.9	222.5
35°	134.9	145.4	157.7	181.6	202.7
37.5°	112.1	122.6	137.8	161.2	181.0
40°	89.9	102.2	119.1	140.2	158.3
42.5°	68.3	81.8	102.8	119.7	135.5
45°	49.1	63.7	87.0	101.0	113.3
47.5°	37.4	47.9	71.8	82.9	91.7
50°	32.1	38.5	57.2	65.4	70.1
52.5°	28.0	33.9	45.6	49.6	49.6
55°	23.9	31.0	36.8	35.6	31.5
57.5°	20.4	28.0	30.4	25.7	26.9
60°	16.9	25.7	25.7	22.8	23.4
62.5°	14.0	23.9	22.2	19.9	20.4
65°	11.7	21.0	19.3	17.5	18.1
67.5°	9.3	18.7	16.9	15.8	15.8
70°	8.2	16.9	15.2	14.0	14.0
72.5°	7.0	14.6	13.4	12.3	12.3
75°	5.8	12.8	11.7	11.1	10.5
77.5°	5.3	11.1	10.5	9.3	8.8
80°	4.1	9.3	9.3	8.8	7.6
82.5°	3.5	8.2	8.2	7.6	6.4
85°	2.9	7.0	7.6	6.4	4.7
87.5°	2.3	6.4	6.4	5.3	3.5
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	8.55	9.82	8.91	10.14	10.45	8.35	9.63	8.71	9.94	10.25
	3H	9.78	10.91	10.16	11.24	11.61	9.94	11.08	10.32	11.41	11.77
	4H	10.23	11.29	10.63	11.64	12.02	10.66	11.72	11.06	12.07	12.45
	6H	10.61	11.59	11.03	11.96	12.35	11.31	12.29	11.73	12.66	13.05
	8H	10.77	11.69	11.20	12.08	12.49	11.64	12.56	12.07	12.95	13.36
	12H	10.93	11.81	11.36	12.19	12.62	11.94	12.82	12.37	13.20	13.63
4H	2H	9.10	10.16	9.50	10.51	10.89	8.94	10.00	9.35	10.35	10.74
	3H	10.79	11.67	11.21	12.07	12.47	10.78	11.65	11.19	12.05	12.46
	4H	11.59	12.37	12.02	12.79	13.23	11.65	12.43	12.09	12.85	13.30
	6H	12.23	12.91	12.69	13.35	13.82	12.50	13.18	12.96	13.62	14.09
	8H	12.48	13.11	12.95	13.56	14.03	12.92	13.56	13.39	14.00	14.47
	12H	12.73	13.29	13.21	13.77	14.24	13.32	13.88	13.81	14.37	14.84
8H	4H	12.00	12.64	12.47	13.08	13.56	12.07	12.70	12.54	13.15	13.62
	6H	12.98	13.50	13.48	14.00	14.48	13.16	13.68	13.66	14.17	14.65
	8H	13.48	13.94	14.00	14.46	14.95	13.75	14.21	14.27	14.73	15.22
	12H	13.98	14.39	14.49	14.89	15.46	14.35	14.76	14.86	15.26	15.83
12H	4H	12.07	12.63	12.56	13.11	13.59	12.14	12.70	12.63	13.19	13.66
	6H	13.15	13.62	13.67	14.13	14.63	13.32	13.79	13.84	14.30	14.79
	8H	13.79	14.20	14.31	14.70	15.27	14.03	14.44	14.55	14.94	15.51