

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: P1058432

Luminaire Tested: S122RDR-H485D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058432
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-H485D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

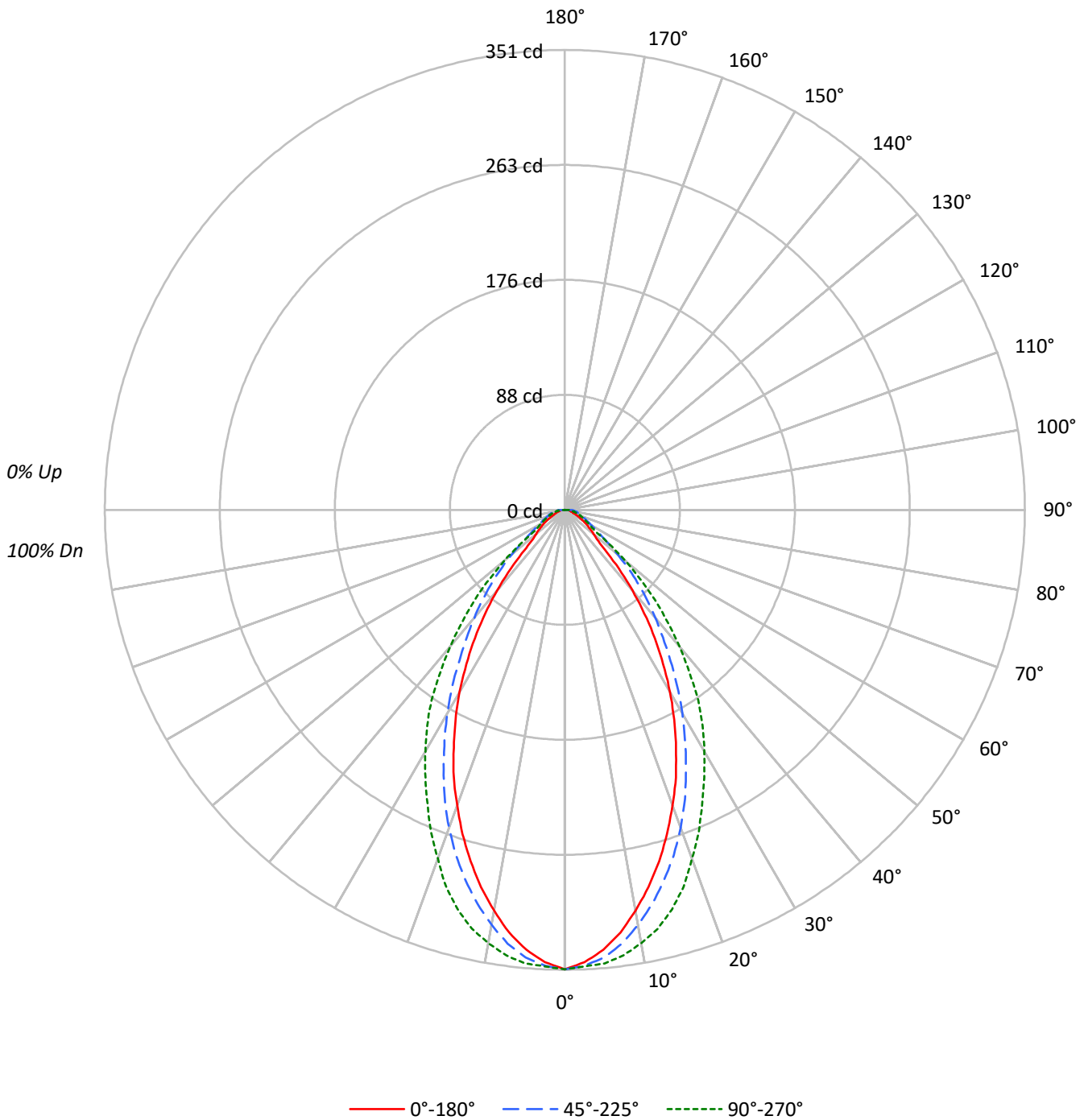
Lumens per Lamp: N/A
Luminaire Lumens: 423.1 lumens
Efficiency: N/A
Efficacy: 24.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	6471	6471	6471
5°	6244	6352	6435
10°	5820	6026	6292
15°	5303	5588	6031
20°	4713	5070	5565
25°	4084	4453	5045
30°	3420	3818	4536
35°	2696	3163	3994
40°	1932	2587	3274
45°	1130	2043	2534
50°	818	1487	1708
55°	688	1062	894
60°	550	860	764
65°	454	764	707
70°	383	734	664
75°	371	784	649
80°	414	967	691
85°	677	1503	953

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2534 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	7.6
10°-20°	82.3	19.5
20°-30°	101.2	23.9
30°-40°	89.4	21.1
40°-50°	57.1	13.5
50°-60°	27.9	6.6
60°-70°	16.6	3.9
70°-80°	10.6	2.5
80°-90°	5.8	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°	215.6	51.0
0°-40°	305.1	72.1
0°-60°	390.0	92.2
0°-90°	423.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	423.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	351	351	351	351	351	
5°	337	344	343	344	347	31
15°	278	285	292	305	316	77
25°	201	208	219	232	248	92
35°	120	126	140	160	177	74
45°	43	56	78	88	97	37
55°	21	28	33	31	28	19
65°	10	19	18	16	16	10
75°	5	12	11	10	9	6
85°	3	6	7	6	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	350.7	350.7	350.7	350.7	350.7
2.5°	345.5	352.0	348.1	348.1	348.7
5°	337.1	344.2	342.9	344.2	347.4
7.5°	325.4	332.6	333.9	339.0	342.9
10°	310.6	317.7	321.6	330.0	335.8
12.5°	295.0	302.2	308.0	319.0	327.4
15°	277.6	285.3	292.5	305.4	315.7
17.5°	259.5	267.2	276.3	289.2	301.5
20°	240.0	247.2	258.2	270.5	283.4
22.5°	221.3	227.7	239.4	251.0	266.6
25°	200.6	207.7	218.7	232.3	247.8
27.5°	180.5	187.6	198.6	214.2	230.3
30°	160.5	166.9	179.2	195.4	212.9
32.5°	139.8	146.2	159.8	177.3	195.4
35°	119.7	126.2	140.4	159.8	177.3
37.5°	99.6	106.8	122.9	141.0	155.9
40°	80.2	88.6	107.4	122.9	135.9
42.5°	60.8	72.5	92.5	105.5	115.8
45°	43.3	55.6	78.3	88.0	97.1
47.5°	33.0	42.7	64.7	71.8	77.6
50°	28.5	34.9	51.8	56.9	59.5
52.5°	24.6	31.1	41.4	43.3	42.1
55°	21.4	28.5	33.0	31.1	27.8
57.5°	18.1	26.5	27.2	23.3	23.9
60°	14.9	23.9	23.3	20.1	20.7
62.5°	12.3	22.0	20.1	18.1	18.1
65°	10.4	19.4	17.5	16.2	16.2
67.5°	8.4	17.5	15.5	14.2	14.2
70°	7.1	15.5	13.6	12.3	12.3
72.5°	6.5	13.6	12.3	11.0	11.0
75°	5.2	11.6	11.0	9.7	9.1
77.5°	4.5	9.7	9.7	9.1	7.8
80°	3.9	8.4	9.1	7.8	6.5
82.5°	3.9	7.8	7.8	7.1	5.2
85°	3.2	6.5	7.1	6.5	4.5
87.5°	1.9	5.8	5.8	5.2	3.2
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	8.51	9.79	8.87	10.10	10.42	8.04	9.32	8.41	9.63	9.95
	3H	9.69	10.82	10.07	11.15	11.52	9.60	10.74	9.98	11.07	11.43
	4H	10.12	11.18	10.52	11.53	11.91	10.29	11.35	10.69	11.70	12.08
	6H	10.46	11.44	10.88	11.81	12.20	10.94	11.92	11.36	12.29	12.68
	8H	10.66	11.59	11.09	11.98	12.38	11.23	12.16	11.66	12.55	12.95
	12H	10.88	11.76	11.31	12.15	12.58	11.55	12.43	11.98	12.81	13.24
4H	2H	9.01	10.08	9.42	10.43	10.81	8.64	9.71	9.05	10.06	10.44
	3H	10.66	11.54	11.07	11.94	12.34	10.44	11.32	10.85	11.72	12.12
	4H	11.42	12.21	11.86	12.63	13.07	11.28	12.07	11.72	12.49	12.93
	6H	12.02	12.70	12.49	13.15	13.62	12.15	12.83	12.61	13.27	13.74
	8H	12.33	12.96	12.80	13.41	13.88	12.54	13.17	13.01	13.62	14.09
	12H	12.64	13.20	13.13	13.69	14.16	12.97	13.54	13.46	14.02	14.49
8H	4H	11.84	12.48	12.31	12.92	13.40	11.74	12.38	12.21	12.82	13.30
	6H	12.79	13.31	13.29	13.81	14.29	12.86	13.38	13.36	13.88	14.36
	8H	13.34	13.81	13.86	14.33	14.82	13.44	13.91	13.96	14.42	14.91
	12H	13.91	14.32	14.42	14.82	15.39	14.10	14.52	14.62	15.01	15.59
12H	4H	11.91	12.48	12.40	12.96	13.43	11.82	12.39	12.31	12.87	13.35
	6H	12.98	13.45	13.50	13.96	14.45	13.04	13.51	13.57	14.03	14.52
	8H	13.67	14.09	14.19	14.58	15.16	13.75	14.17	14.27	14.66	15.24