

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: P1058412

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058412
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

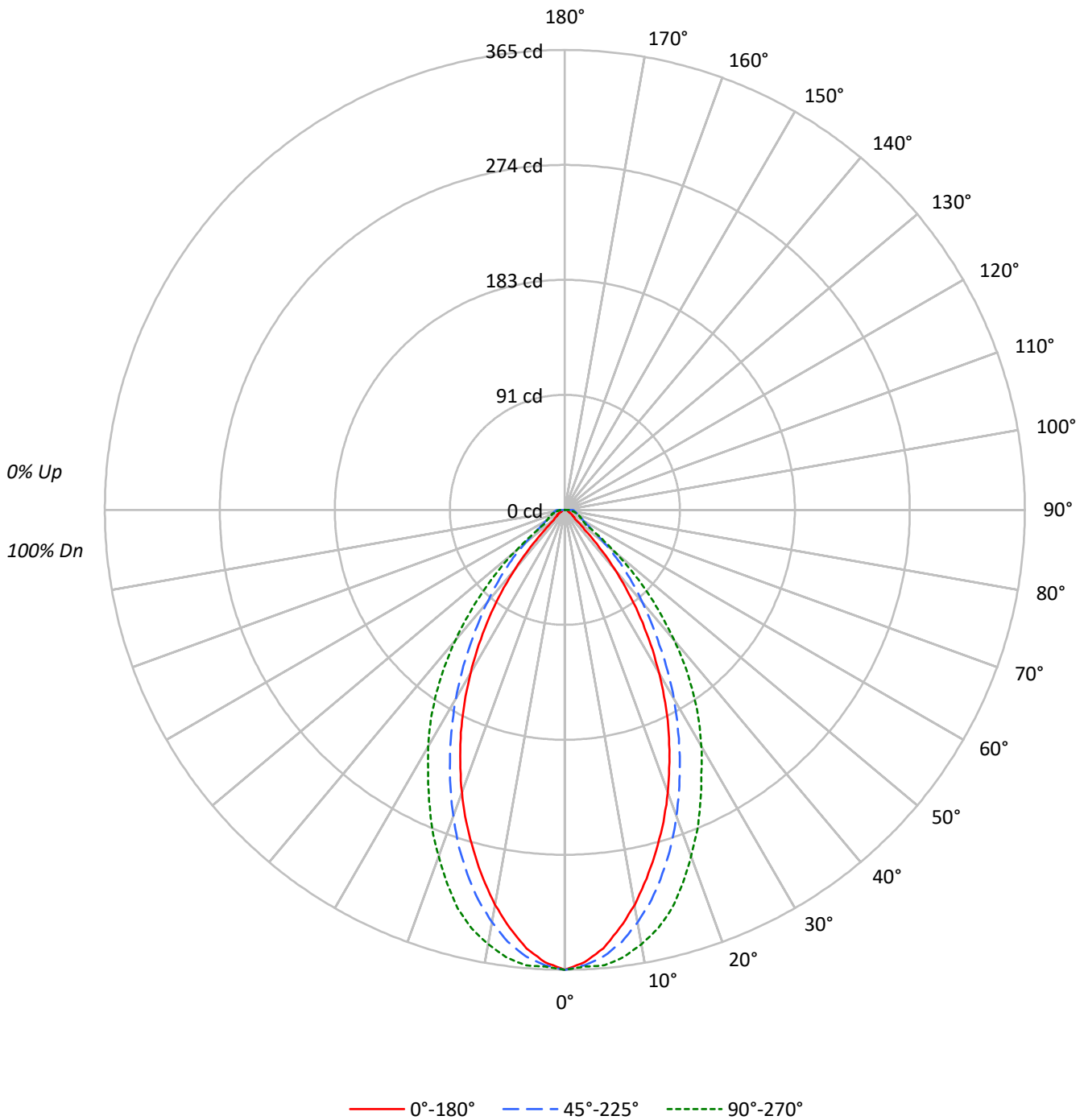
Lumens per Lamp: N/A
Luminaire Lumens: 397.4 lumens
Efficiency: N/A
Efficacy: 22.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6737	6737	6737
5°	6470	6589	6720
10°	5966	6228	6556
15°	5345	5714	6260
20°	4691	5082	5748
25°	3972	4390	5186
30°	3185	3684	4617
35°	2356	2946	4001
40°	1477	2308	3249
45°	579	1738	2409
50°	284	1174	1476
55°	225	772	656
60°	173	624	605
65°	127	585	585
70°	156	599	599
75°	164	663	627
80°	244	871	680
85°	487	1482	995

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2707 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.3	8.4
10°-20°	84.3	21.2
20°-30°	100.9	25.4
30°-40°	84.9	21.4
40°-50°	48.3	12.2
50°-60°	19.1	4.8
60°-70°	12.0	3.0
70°-80°	8.9	2.2
80°-90°	5.7	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°	218.5	55.0
0°-40°	303.4	76.3
0°-60°	370.8	93.3
0°-90°	397.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	397.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	365	365	365	365	365	
5°	349	357	356	360	363	32
15°	280	290	299	317	328	78
25°	195	204	216	238	255	89
35°	105	114	131	159	178	65
45°	22	39	67	84	92	21
55°	7	15	24	24	20	6
65°	3	13	13	13	13	3
75°	2	9	9	9	9	3
85°	2	6	7	6	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	365.1	365.1	365.1	365.1	365.1
2.5°	359.3	365.7	361.6	362.2	362.8
5°	349.3	356.9	355.7	359.8	362.8
7.5°	334.7	342.9	345.8	352.8	358.1
10°	318.4	327.7	332.4	343.5	349.9
12.5°	299.7	310.2	317.2	331.2	340.6
15°	279.8	289.7	299.1	316.6	327.7
17.5°	259.9	269.9	279.8	299.1	310.8
20°	238.9	248.3	258.8	279.2	292.7
22.5°	216.7	226.7	237.2	258.2	274.6
25°	195.1	203.9	215.6	237.7	254.7
27.5°	172.3	181.1	193.9	216.7	234.8
30°	149.5	158.3	172.9	196.3	216.7
32.5°	126.8	136.1	151.9	177.6	198.0
35°	104.6	113.9	130.8	158.9	177.6
37.5°	82.9	93.5	112.2	139.6	157.1
40°	61.3	73.6	95.8	120.3	134.9
42.5°	40.9	56.1	80.6	101.1	113.3
45°	22.2	39.1	66.6	83.5	92.3
47.5°	12.3	25.1	53.2	66.6	71.9
50°	9.9	17.5	40.9	50.8	51.4
52.5°	8.2	15.8	30.4	36.2	33.3
55°	7.0	15.2	24.0	24.5	20.4
57.5°	5.8	14.6	19.9	17.5	17.5
60°	4.7	14.6	16.9	15.8	16.4
62.5°	3.5	14.6	15.2	14.0	14.6
65°	2.9	13.4	13.4	12.9	13.4
67.5°	2.9	12.3	12.3	11.7	12.3
70°	2.9	11.7	11.1	11.1	11.1
72.5°	2.3	10.5	10.5	9.9	9.9
75°	2.3	9.3	9.3	8.8	8.8
77.5°	2.3	8.8	8.8	8.2	7.6
80°	2.3	7.6	8.2	7.6	6.4
82.5°	2.3	7.0	7.6	7.0	5.3
85°	2.3	6.4	7.0	6.4	4.7
87.5°	1.8	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	4.31	5.54	4.68	5.85	6.16	6.33	7.56	6.70	7.87	8.18
	3H	5.86	6.95	6.24	7.28	7.64	8.32	9.40	8.70	9.73	10.10
	4H	6.41	7.42	6.81	7.77	8.16	9.23	10.25	9.64	10.60	10.98
	6H	6.96	7.89	7.38	8.26	8.66	10.12	11.05	10.53	11.42	11.81
	8H	7.25	8.13	7.68	8.52	8.93	10.52	11.40	10.95	11.79	12.20
	12H	7.60	8.44	8.04	8.83	9.26	10.97	11.81	11.40	12.19	12.62
4H	2H	5.50	6.51	5.90	6.86	7.24	6.95	7.97	7.36	8.32	8.70
	3H	7.70	8.54	8.12	8.94	9.34	9.21	10.04	9.62	10.44	10.85
	4H	8.75	9.49	9.18	9.92	10.36	10.28	11.03	10.72	11.45	11.90
	6H	9.64	10.29	10.11	10.74	11.21	11.39	12.04	11.86	12.49	12.96
	8H	10.03	10.63	10.50	11.08	11.55	11.92	12.52	12.39	12.97	13.44
	12H	10.44	10.97	10.93	11.46	11.93	12.50	13.03	12.98	13.52	13.99
8H	4H	9.55	10.16	10.02	10.61	11.08	10.77	11.38	11.25	11.83	12.30
	6H	10.94	11.43	11.44	11.93	12.41	12.17	12.67	12.68	13.17	13.65
	8H	11.65	12.10	12.18	12.62	13.11	12.91	13.36	13.44	13.88	14.37
	12H	12.40	12.79	12.91	13.29	13.86	13.75	14.14	14.26	14.63	15.21
12H	4H	9.72	10.25	10.20	10.73	11.21	10.88	11.41	11.36	11.89	12.37
	6H	11.27	11.72	11.79	12.23	12.73	12.39	12.84	12.91	13.35	13.85
	8H	12.18	12.58	12.70	13.07	13.64	13.28	13.67	13.79	14.17	14.74