

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: P1058400

Luminaire Tested: S122RDR-H485D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058400
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D927-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

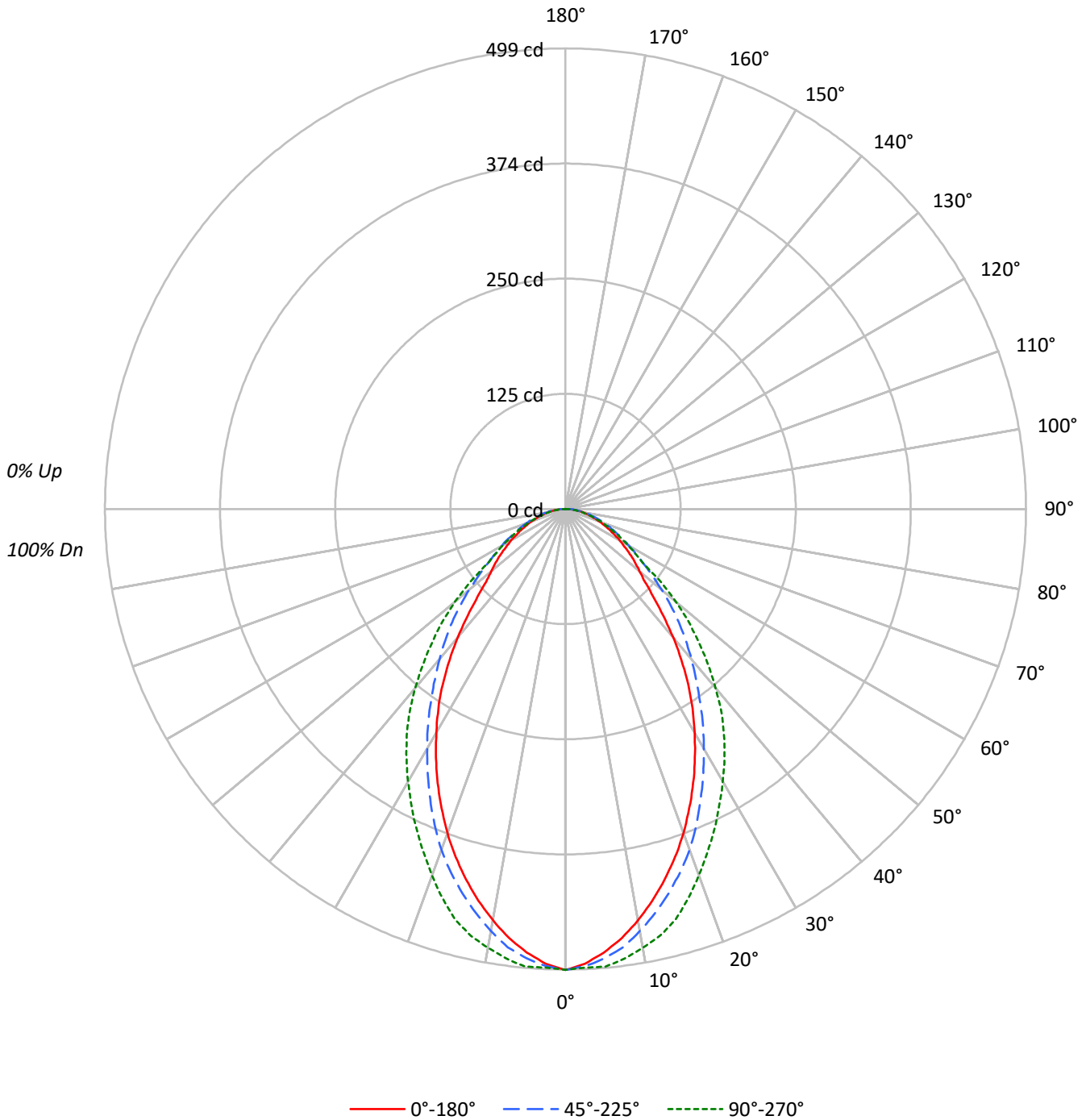
Lumens per Lamp: N/A
Luminaire Lumens: 814.2 lumens
Efficiency: N/A
Efficacy: 46.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				
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	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	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	46	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	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9215	9215	9215
5°	8932	9052	9221
10°	8482	8703	9046
15°	7939	8237	8803
20°	7340	7719	8298
25°	6670	7063	7784
30°	5962	6386	7266
35°	5226	5722	6751
40°	4372	5109	6092
45°	3505	4528	5326
50°	3006	3901	4470
55°	2747	3317	3301
60°	2498	2934	2875
65°	2275	2624	2511
70°	2088	2406	2228
75°	1953	2217	1953
80°	1828	2051	1711
85°	1821	2160	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5326 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	5.7
10°-20°	122.1	15.0
20°-30°	161.0	19.8
30°-40°	162.1	19.9
40°-50°	131.9	16.2
50°-60°	90.0	11.0
60°-70°	58.4	7.2
70°-80°	32.1	3.9
80°-90°	10.5	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°	329.1	40.4
0°-40°	491.3	60.3
0°-60°	713.2	87.6
0°-90°	814.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	814.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	499	499	499	499	499	
5°	482	491	489	493	498	45
15°	416	426	431	449	461	116
25°	328	338	347	362	382	150
35°	232	244	254	276	300	144
45°	134	151	174	188	204	106
55°	85	94	103	104	103	76
65°	52	62	60	57	58	52
75°	27	34	31	28	27	29
85°	9	11	10	8	7	9
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	499.4	499.4	499.4	499.4	499.4
2.5°	493.0	501.0	495.7	496.2	497.3
5°	482.2	491.4	488.7	493.0	497.8
7.5°	468.8	477.9	479.0	485.5	491.4
10°	452.7	462.9	464.5	474.2	482.8
12.5°	435.0	446.3	448.4	462.4	473.6
15°	415.6	426.4	431.2	448.9	460.8
17.5°	395.2	405.4	413.0	429.1	442.5
20°	373.8	383.4	393.1	407.6	422.6
22.5°	350.7	361.4	370.5	385.0	402.2
25°	327.6	338.3	346.9	362.5	382.3
27.5°	303.9	314.7	323.3	339.9	361.4
30°	279.8	291.1	299.7	318.4	341.0
32.5°	256.2	267.4	277.1	297.0	320.6
35°	232.0	243.8	254.0	276.0	299.7
37.5°	206.2	219.6	232.5	254.5	277.6
40°	181.5	196.5	212.1	232.5	252.9
42.5°	156.8	173.5	192.8	210.0	228.8
45°	134.3	150.9	173.5	188.5	204.1
47.5°	116.5	130.5	154.7	167.0	181.0
50°	104.7	114.4	135.9	145.5	155.7
52.5°	95.1	103.1	118.1	124.6	130.0
55°	85.4	94.0	103.1	103.6	102.6
57.5°	75.7	85.4	90.2	86.5	88.6
60°	67.7	77.3	79.5	75.7	77.9
62.5°	59.1	69.8	69.8	66.1	67.1
65°	52.1	61.8	60.1	56.9	57.5
67.5°	45.1	54.8	52.1	48.9	48.9
70°	38.7	47.8	44.6	41.3	41.3
72.5°	32.8	40.3	38.1	34.4	33.8
75°	27.4	33.8	31.1	27.9	27.4
77.5°	22.0	27.4	25.2	22.6	21.5
80°	17.2	22.0	19.3	17.2	16.1
82.5°	12.9	16.6	14.5	12.4	11.3
85°	8.6	11.3	10.2	8.1	7.0
87.5°	4.3	7.5	6.4	5.4	4.3
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	14.44	15.87	14.80	16.19	16.50	14.68	16.12	15.05	16.44	16.75
	3H	15.96	17.25	16.34	17.58	17.94	16.04	17.33	16.42	17.66	18.02
	4H	16.53	17.73	16.93	18.08	18.46	16.52	17.73	16.92	18.08	18.46
	6H	16.95	18.06	17.36	18.43	18.82	16.87	17.98	17.28	18.35	18.74
	8H	17.10	18.16	17.53	18.55	18.95	16.98	18.04	17.41	18.43	18.83
	12H	17.22	18.23	17.65	18.61	19.04	17.05	18.06	17.48	18.44	18.87
4H	2H	15.01	16.21	15.41	16.56	16.94	15.21	16.41	15.61	16.76	17.14
	3H	16.81	17.81	17.22	18.21	18.61	16.78	17.78	17.19	18.18	18.58
	4H	17.55	18.45	17.99	18.87	19.31	17.37	18.27	17.81	18.69	19.13
	6H	18.14	18.92	18.60	19.36	19.83	17.84	18.62	18.30	19.07	19.53
	8H	18.35	19.08	18.81	19.52	19.99	17.99	18.72	18.46	19.17	19.64
	12H	18.51	19.16	19.00	19.64	20.12	18.10	18.75	18.59	19.23	19.71
8H	4H	17.82	18.55	18.28	18.99	19.46	17.66	18.39	18.13	18.84	19.31
	6H	18.57	19.17	19.07	19.67	20.15	18.26	18.86	18.75	19.35	19.83
	8H	18.90	19.44	19.41	19.95	20.44	18.48	19.02	19.00	19.53	20.02
	12H	19.18	19.66	19.69	20.15	20.72	18.66	19.14	19.17	19.63	20.20
12H	4H	17.83	18.48	18.32	18.96	19.43	17.70	18.35	18.18	18.83	19.30
	6H	18.62	19.16	19.13	19.67	20.16	18.32	18.86	18.84	19.38	19.87
	8H	19.01	19.49	19.53	19.98	20.55	18.61	19.09	19.12	19.58	20.15