

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: P1058364

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058364
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-H485D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

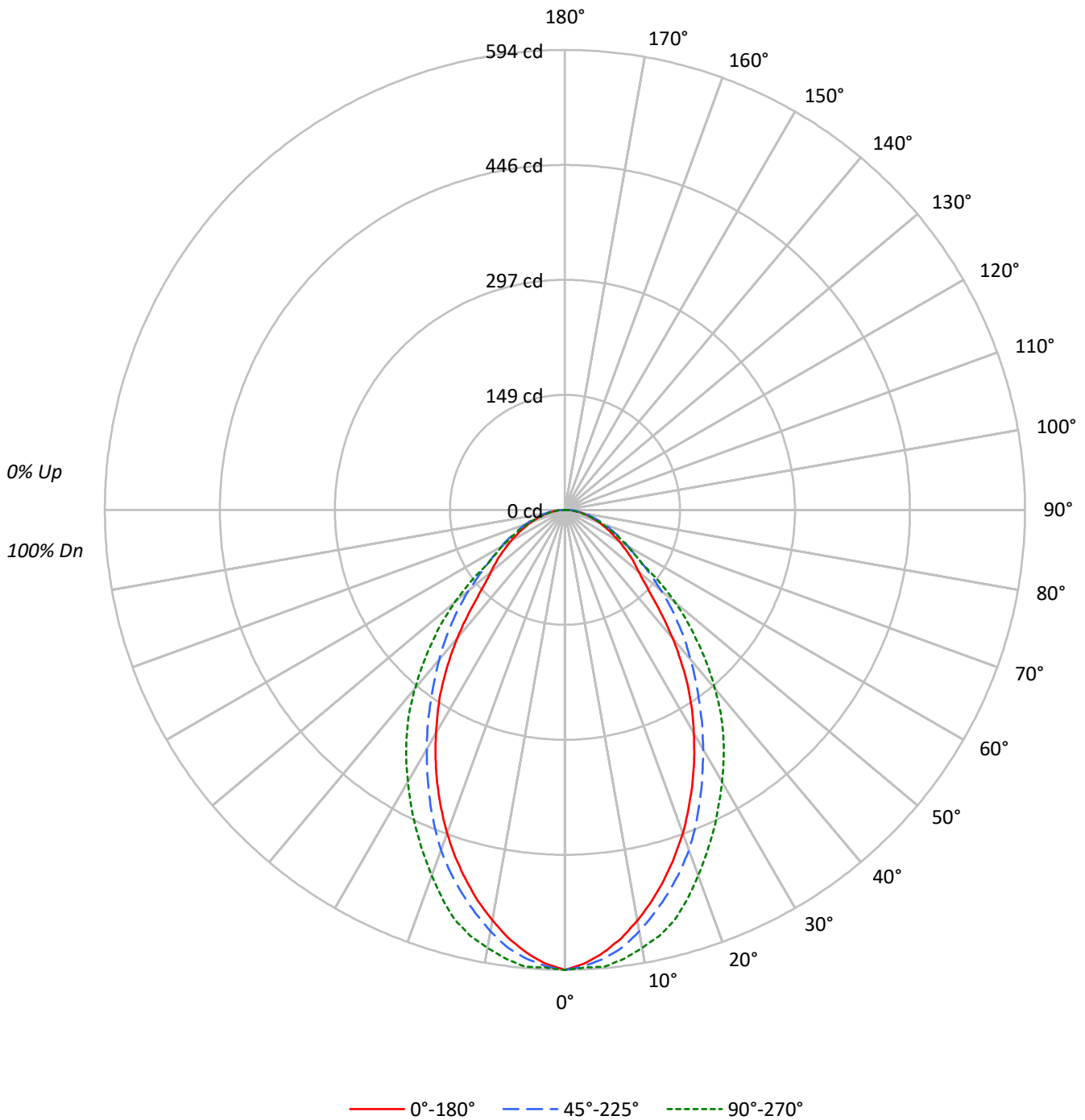
Lumens per Lamp: N/A
Luminaire Lumens: 968.8 lumens
Efficiency: N/A
Efficacy: 55.7 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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°	10964	10964	10964
5°	10628	10769	10971
10°	10092	10356	10763
15°	9447	9802	10472
20°	8732	9184	9873
25°	7936	8405	9262
30°	7093	7596	8644
35°	6217	6807	8031
40°	5203	6080	7248
45°	4167	5386	6336
50°	3577	4642	5319
55°	3269	3947	3925
60°	2971	3491	3417
65°	2707	3126	2986
70°	2482	2859	2654
75°	2324	2645	2324
80°	2168	2444	2040
85°	2160	2562	1757

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6336 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	5.7
10°-20°	145.2	15.0
20°-30°	191.5	19.8
30°-40°	192.9	19.9
40°-50°	157.0	16.2
50°-60°	107.0	11.0
60°-70°	69.5	7.2
70°-80°	38.3	3.9
80°-90°	12.5	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°	391.6	40.4
0°-40°	584.5	60.3
0°-60°	848.5	87.6
0°-90°	968.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	968.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	574	585	581	586	592	54
15°	494	507	513	534	548	139
25°	390	402	413	431	455	179
35°	276	290	302	328	356	171
45°	160	180	206	224	243	126
55°	102	112	123	123	122	91
65°	62	74	72	68	68	62
75°	33	40	37	33	33	35
85°	10	13	12	10	8	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	594.2	594.2	594.2	594.2	594.2
2.5°	586.5	596.1	589.7	590.4	591.7
5°	573.8	584.6	581.4	586.5	592.3
7.5°	557.8	568.7	569.9	577.6	584.6
10°	538.6	550.8	552.7	564.2	574.4
12.5°	517.5	531.0	533.5	550.1	563.5
15°	494.5	507.3	513.1	534.2	548.2
17.5°	470.3	482.4	491.3	510.5	526.5
20°	444.7	456.2	467.7	485.0	502.8
22.5°	417.2	430.0	440.9	458.1	478.6
25°	389.8	402.5	412.8	431.3	454.9
27.5°	361.6	374.4	384.6	404.4	430.0
30°	332.9	346.3	356.5	378.9	405.7
32.5°	304.8	318.2	329.7	353.3	381.4
35°	276.0	290.1	302.2	328.4	356.5
37.5°	245.4	261.3	276.7	302.9	330.3
40°	216.0	233.9	252.4	276.7	300.9
42.5°	186.6	206.4	229.4	249.8	272.2
45°	159.7	179.5	206.4	224.3	242.8
47.5°	138.6	155.3	184.0	198.7	215.3
50°	124.6	136.1	161.7	173.2	185.3
52.5°	113.1	122.7	140.6	148.2	154.6
55°	101.6	111.8	122.7	123.3	122.0
57.5°	90.1	101.6	107.3	102.9	105.4
60°	80.5	92.0	94.6	90.1	92.6
62.5°	70.3	83.1	83.1	78.6	79.9
65°	62.0	73.5	71.6	67.7	68.4
67.5°	53.7	65.2	62.0	58.1	58.1
70°	46.0	56.9	53.0	49.2	49.2
72.5°	39.0	47.9	45.4	40.9	40.3
75°	32.6	40.3	37.1	33.2	32.6
77.5°	26.2	32.6	30.0	26.8	25.6
80°	20.4	26.2	23.0	20.4	19.2
82.5°	15.3	19.8	17.3	14.7	13.4
85°	10.2	13.4	12.1	9.6	8.3
87.5°	5.1	8.9	7.7	6.4	5.1
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	15.04	16.48	15.40	16.79	17.11	15.29	16.73	15.65	17.04	17.35
	3H	16.57	17.86	16.95	18.18	18.55	16.64	17.93	17.02	18.26	18.62
	4H	17.13	18.34	17.53	18.69	19.07	17.13	18.33	17.53	18.68	19.06
	6H	17.55	18.67	17.97	19.03	19.43	17.47	18.59	17.89	18.95	19.35
	8H	17.71	18.76	18.13	19.15	19.56	17.58	18.64	18.01	19.03	19.43
	12H	17.82	18.83	18.25	19.21	19.64	17.65	18.66	18.08	19.04	19.47
4H	2H	15.61	16.82	16.01	17.17	17.55	15.81	17.02	16.21	17.37	17.75
	3H	17.42	18.41	17.83	18.82	19.22	17.39	18.38	17.80	18.78	19.19
	4H	18.16	19.06	18.59	19.47	19.91	17.98	18.88	18.41	19.29	19.73
	6H	18.74	19.52	19.20	19.97	20.43	18.45	19.23	18.91	19.67	20.13
	8H	18.95	19.68	19.42	20.13	20.60	18.60	19.33	19.06	19.77	20.24
	12H	19.12	19.77	19.60	20.25	20.72	18.71	19.36	19.19	19.84	20.31
8H	4H	18.42	19.15	18.89	19.60	20.07	18.27	19.00	18.73	19.44	19.91
	6H	19.18	19.78	19.68	20.27	20.75	18.86	19.46	19.36	19.95	20.43
	8H	19.50	20.04	20.02	20.55	21.04	19.08	19.62	19.60	20.13	20.62
	12H	19.78	20.26	20.30	20.75	21.32	19.26	19.74	19.78	20.23	20.80
12H	4H	18.44	19.09	18.92	19.57	20.04	18.30	18.95	18.79	19.43	19.90
	6H	19.22	19.77	19.74	20.28	20.77	18.93	19.47	19.44	19.98	20.47
	8H	19.62	20.10	20.13	20.59	21.16	19.21	19.69	19.72	20.18	20.75