

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: P1058236

Luminaire Tested: S122RDR-H1005D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D927-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK 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

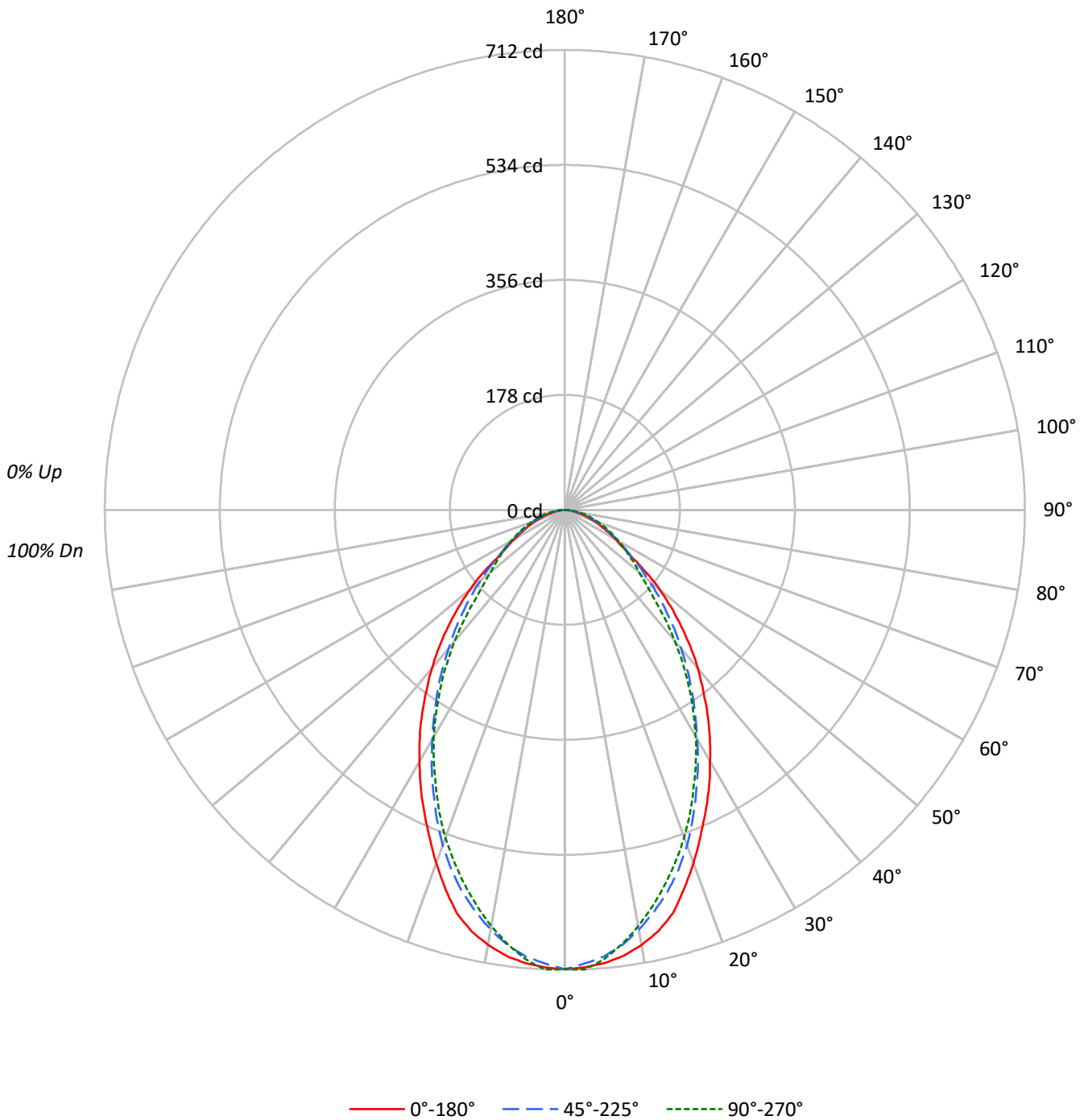
Lumens per Lamp: N/A
Luminaire Lumens: 1079.8 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13120	13120	13120
5°	13044	12855	12938
10°	12812	12367	12262
15°	12350	11701	11462
20°	11427	10849	10604
25°	10487	9797	9612
30°	9578	8732	8636
35°	8670	7727	7549
40°	7718	6735	6381
45°	6647	5791	5112
50°	5492	4874	4289
55°	3970	4044	3861
60°	3299	3469	3510
65°	2816	3017	3214
70°	2320	2687	2930
75°	1939	2260	2666
80°	1445	1806	2402
85°	487	953	2160

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6647 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	6.1
10°-20°	173.1	16.0
20°-30°	224.0	20.7
30°-40°	219.7	20.3
40°-50°	173.0	16.0
50°-60°	113.4	10.5
60°-70°	69.0	6.4
70°-80°	34.5	3.2
80°-90°	7.4	0.7
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°	462.8	42.9
0°-40°	682.5	63.2
0°-60°	968.8	89.7
0°-90°	1079.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1079.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	704	704	694	698	698	67
15°	646	637	612	605	600	180
25°	515	498	481	479	472	237
35°	385	363	343	342	335	240
45°	255	239	222	206	196	196
55°	123	130	126	121	120	117
65°	64	66	69	72	74	64
75°	27	28	32	36	37	29
85°	2	3	4	8	10	5
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.0	711.0	711.0	711.0	711.0
2.5°	708.7	709.9	703.1	709.9	712.1
5°	704.2	704.2	694.0	698.5	698.5
7.5°	696.3	695.1	679.3	679.3	678.2
10°	683.8	679.3	660.0	656.6	654.4
12.5°	668.0	660.0	637.4	631.7	628.3
15°	646.5	637.4	612.5	604.6	600.0
17.5°	614.8	605.7	584.2	575.1	570.6
20°	581.9	568.3	552.5	544.6	540.0
22.5°	548.0	532.1	517.4	511.7	507.2
25°	515.1	498.1	481.2	478.9	472.1
27.5°	483.4	463.1	446.1	444.9	439.3
30°	449.5	428.0	409.8	411.0	405.3
32.5°	417.8	397.4	375.9	377.0	370.2
35°	384.9	363.4	343.0	341.9	335.1
37.5°	351.0	330.6	311.3	306.8	300.0
40°	320.4	300.0	279.6	271.7	264.9
42.5°	287.6	269.5	251.3	238.9	229.8
45°	254.7	238.9	221.9	206.1	195.9
47.5°	223.0	210.6	195.9	176.6	169.8
50°	191.3	182.3	169.8	152.8	149.4
52.5°	158.5	155.1	147.2	135.9	134.7
55°	123.4	130.2	125.7	121.1	120.0
57.5°	104.2	105.3	108.7	107.6	107.6
60°	89.4	89.4	94.0	95.1	95.1
62.5°	75.9	77.0	81.5	83.8	83.8
65°	64.5	65.7	69.1	72.5	73.6
67.5°	53.2	55.5	58.9	62.3	63.4
70°	43.0	45.3	49.8	53.2	54.3
72.5°	35.1	36.2	40.8	44.2	45.3
75°	27.2	28.3	31.7	36.2	37.4
77.5°	19.2	21.5	24.9	28.3	30.6
80°	13.6	14.7	17.0	21.5	22.6
82.5°	7.9	9.1	11.3	14.7	15.9
85°	2.3	3.4	4.5	7.9	10.2
87.5°	0.0	0.0	0.0	2.3	4.5
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	15.07	16.46	15.43	16.78	17.09	15.25	16.64	15.61	16.96	17.27
	3H	16.20	17.44	16.58	17.77	18.14	16.71	17.95	17.09	18.28	18.64
	4H	16.55	17.71	16.95	18.06	18.45	17.25	18.41	17.65	18.76	19.14
	6H	16.73	17.81	17.15	18.17	18.57	17.66	18.73	18.08	19.10	19.49
	8H	16.76	17.78	17.19	18.17	18.57	17.79	18.81	18.22	19.20	19.60
	12H	16.75	17.72	17.18	18.10	18.53	17.87	18.84	18.30	19.23	19.66
4H	2H	15.52	16.69	15.93	17.04	17.42	15.67	16.84	16.08	17.19	17.57
	3H	16.86	17.82	17.28	18.22	18.63	17.35	18.30	17.76	18.71	19.11
	4H	17.31	18.17	17.74	18.58	19.03	18.01	18.87	18.44	19.29	19.73
	6H	17.58	18.32	18.04	18.77	19.23	18.54	19.29	19.00	19.73	20.20
	8H	17.62	18.32	18.09	18.76	19.23	18.71	19.41	19.18	19.85	20.32
	12H	17.62	18.23	18.10	18.72	19.19	18.83	19.45	19.32	19.93	20.40
8H	4H	17.52	18.22	17.99	18.66	19.13	18.16	18.85	18.63	19.30	19.77
	6H	17.87	18.44	18.37	18.93	19.41	18.79	19.36	19.29	19.85	20.33
	8H	17.95	18.46	18.47	18.97	19.46	19.02	19.53	19.54	20.05	20.54
	12H	17.96	18.41	18.48	18.91	19.48	19.21	19.66	19.72	20.15	20.72
12H	4H	17.53	18.15	18.02	18.63	19.10	18.15	18.76	18.63	19.24	19.72
	6H	17.89	18.40	18.41	18.92	19.41	18.78	19.29	19.30	19.81	20.30
	8H	18.01	18.46	18.52	18.95	19.52	19.06	19.51	19.57	20.00	20.57