

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: P1058233

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D927-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

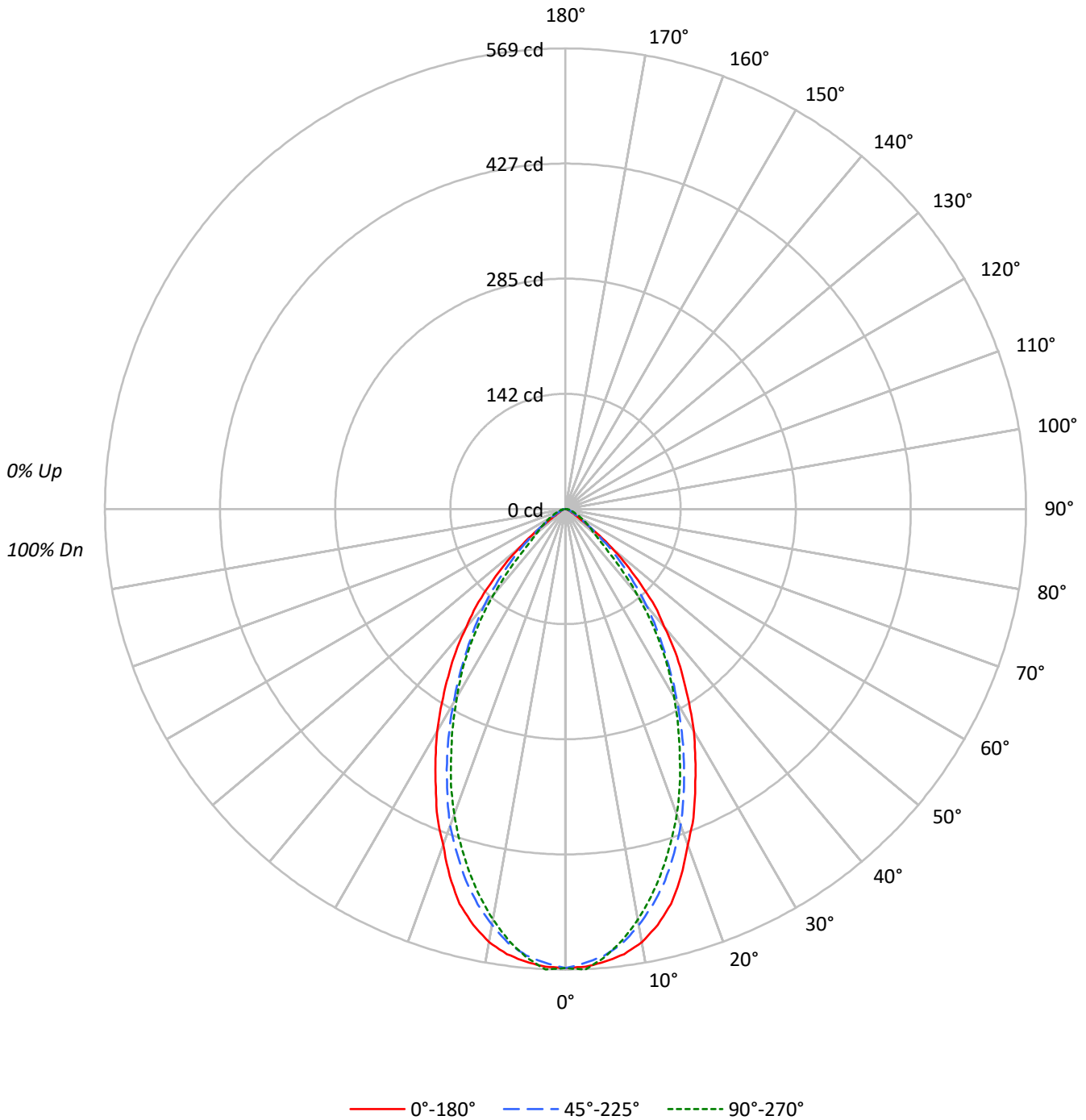
Lumens per Lamp: N/A
Luminaire Lumens: 610.0 lumens
Efficiency: N/A
Efficacy: 16.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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																		
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	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	100	96	96	96	92	92	92	88	88	88	84																
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92	92	92	88	87	86	84	84	84	80	80	80	76																
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84	84	84	80	79	84	80	78	76	76	76	72	70																
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76	76	76	72	79	84	80	78	76	76	76	72	70																
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70	70	70	72	79	84	80	78	76	76	76	72	70																
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64	64	64	66	73	69	65	64	64	64	64	60	59																
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59	59	59	61	68	64	60	59	59	59	59	56	54																
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54	54	54	56	64	59	56	54	54	54	54	50	47																
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50	50	50	52	60	55	52	50	50	50	50	47	47																
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47	47	47	48	56	52	48	47	47	47	47	47	47																
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44	44	44	45	53	48	45	44	44	44	44	44	44																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10466	10466	10466
5°	10401	10254	10295
10°	10182	9779	9651
15°	9645	9084	8824
20°	8670	8181	7892
25°	7721	7053	6800
30°	6754	5885	5717
35°	5688	4769	4616
40°	4582	3763	3327
45°	3426	2719	1978
50°	2144	1754	1300
55°	727	946	1055
60°	417	583	834
65°	297	397	642
70°	243	308	491
75°	164	242	406
80°	117	244	361
85°	0	0	233

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3426 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	8.6
10°-20°	133.8	21.9
20°-30°	161.1	26.4
30°-40°	137.7	22.6
40°-50°	80.7	13.2
50°-60°	29.2	4.8
60°-70°	10.4	1.7
70°-80°	4.1	0.7
80°-90°	0.7	0.1
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°	347.2	56.9
0°-40°	484.9	79.5
0°-60°	594.7	97.5
0°-90°	610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	562	563	554	556	556	53
15°	505	497	476	466	462	140
25°	379	363	346	341	334	174
35°	252	233	212	209	205	158
45°	131	118	104	87	76	101
55°	23	32	29	31	33	28
65°	7	8	9	12	15	7
75°	2	3	3	4	6	3
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.2	567.2	567.2	567.2	567.2
2.5°	566.0	567.2	561.5	567.2	569.4
5°	561.5	562.6	553.6	555.8	555.8
7.5°	554.7	553.6	541.1	538.9	537.7
10°	543.4	540.0	521.9	518.5	515.1
12.5°	526.4	519.6	500.4	494.7	490.2
15°	504.9	497.0	475.5	466.4	461.9
17.5°	475.5	466.4	446.0	437.0	432.4
20°	441.5	432.4	416.6	406.4	401.9
22.5°	413.2	398.5	381.5	374.7	369.1
25°	379.2	363.4	346.4	340.8	334.0
27.5°	347.5	328.3	311.3	306.8	301.1
30°	317.0	296.6	276.2	276.2	268.3
32.5°	284.1	264.9	243.4	242.3	237.7
35°	252.5	233.2	211.7	209.4	204.9
37.5°	223.0	203.8	183.4	176.6	170.9
40°	190.2	173.2	156.2	144.9	138.1
42.5°	164.1	144.9	127.9	114.3	105.3
45°	131.3	117.7	104.2	87.2	75.8
47.5°	101.9	92.8	81.5	62.3	56.6
50°	74.7	70.2	61.1	46.4	45.3
52.5°	47.5	49.8	44.2	36.2	39.6
55°	22.6	31.7	29.4	30.6	32.8
57.5°	14.7	15.8	21.5	24.9	27.2
60°	11.3	11.3	15.8	20.4	22.6
62.5°	9.1	9.1	12.5	17.0	18.1
65°	6.8	7.9	9.1	12.5	14.7
67.5°	5.7	5.7	6.8	10.2	11.3
70°	4.5	4.5	5.7	7.9	9.1
72.5°	3.4	3.4	4.5	6.8	6.8
75°	2.3	3.4	3.4	4.5	5.7
77.5°	2.3	2.3	2.3	3.4	4.5
80°	1.1	1.1	2.3	2.3	3.4
82.5°	1.1	1.1	1.1	1.1	2.3
85°	0.0	0.0	0.0	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0
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	4.02	5.19	4.39	5.50	5.81	7.44	8.60	7.80	8.91	9.23
	3H	4.55	5.57	4.93	5.90	6.27	8.17	9.19	8.55	9.52	9.89
	4H	4.69	5.63	5.09	5.99	6.37	8.39	9.33	8.79	9.69	10.07
	6H	4.76	5.63	5.18	6.00	6.40	8.53	9.40	8.95	9.77	10.17
	8H	4.77	5.58	5.20	5.97	6.38	8.57	9.39	9.00	9.78	10.18
	12H	4.73	5.51	5.16	5.89	6.32	8.57	9.35	9.00	9.73	10.16
4H	2H	4.34	5.29	4.74	5.64	6.03	7.41	8.36	7.81	8.71	9.09
	3H	5.00	5.77	5.42	6.18	6.58	8.28	9.05	8.70	9.46	9.86
	4H	5.25	5.93	5.68	6.35	6.80	8.56	9.25	9.00	9.67	10.11
	6H	5.37	5.95	5.84	6.40	6.87	8.79	9.37	9.26	9.82	10.29
	8H	5.38	5.93	5.85	6.37	6.85	8.83	9.38	9.31	9.83	10.30
	12H	5.34	5.82	5.83	6.31	6.78	8.85	9.33	9.34	9.82	10.29
8H	4H	5.36	5.90	5.83	6.35	6.82	8.49	9.04	8.97	9.49	9.96
	6H	5.52	5.96	6.03	6.46	6.95	8.76	9.20	9.26	9.70	10.18
	8H	5.56	5.96	6.09	6.48	6.97	8.82	9.21	9.34	9.73	10.23
	12H	5.54	5.89	6.06	6.38	6.96	8.87	9.22	9.39	9.72	10.29
12H	4H	5.34	5.82	5.83	6.31	6.78	8.45	8.92	8.94	9.41	9.89
	6H	5.52	5.92	6.05	6.44	6.93	8.70	9.10	9.23	9.62	10.11
	8H	5.59	5.94	6.11	6.43	7.01	8.79	9.14	9.31	9.64	10.21