

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: P1058560

Luminaire Tested: S122RDR-H865D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058560
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-H865D927-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

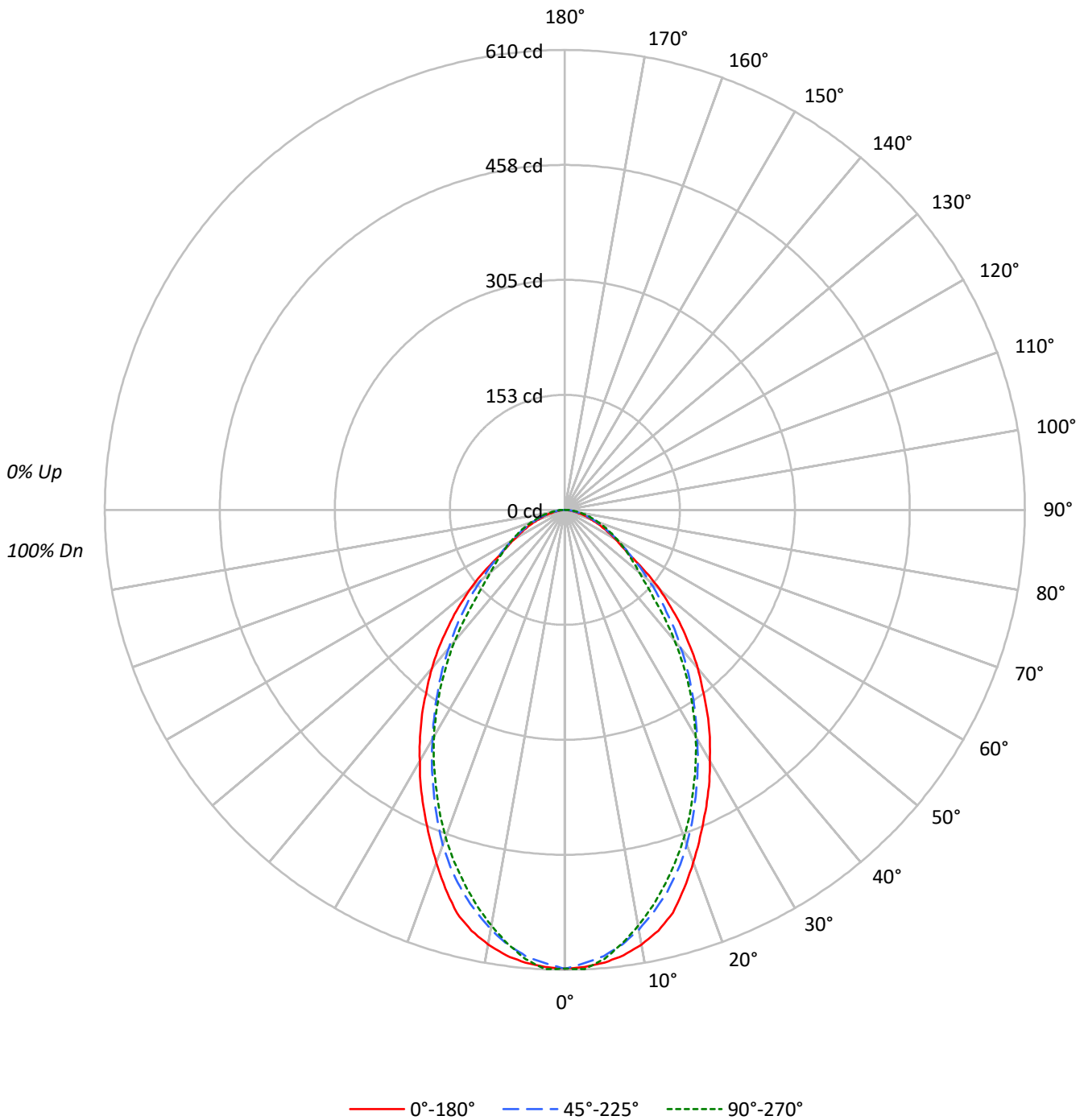
Lumens per Lamp: N/A
Luminaire Lumens: 924.3 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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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CATALOG NUMBER: S122RDR-H865D927-X4F0-XX-UDD-WVL-B

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°	11230	11230	11230
5°	11166	11004	11077
10°	10969	10586	10497
15°	10572	10016	9813
20°	9781	9286	9078
25°	8979	8386	8227
30°	8199	7475	7394
35°	7422	6616	6463
40°	6607	5767	5463
45°	5691	4958	4376
50°	4702	4174	3672
55°	3397	3462	3304
60°	2827	2967	3004
65°	2410	2580	2751
70°	1985	2298	2509
75°	1661	1932	2281
80°	1233	1541	2062
85°	402	826	1842

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5691 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.2	6.1
10°-20°	148.2	16.0
20°-30°	191.8	20.7
30°-40°	188.1	20.3
40°-50°	148.1	16.0
50°-60°	97.1	10.5
60°-70°	59.1	6.4
70°-80°	29.5	3.2
80°-90°	6.4	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°	396.2	42.9
0°-40°	584.2	63.2
0°-60°	829.4	89.7
0°-90°	924.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	924.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	609	609	609	609	609	
5°	603	603	594	598	598	57
15°	553	546	524	518	514	154
25°	441	426	412	410	404	203
35°	330	311	294	293	287	205
45°	218	204	190	176	168	168
55°	106	112	108	104	103	100
65°	55	56	59	62	63	55
75°	23	24	27	31	32	25
85°	2	3	4	7	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	608.6	608.6	608.6	608.6	608.6
2.5°	606.7	607.7	601.8	607.7	609.6
5°	602.8	602.8	594.1	598.0	598.0
7.5°	596.0	595.1	581.5	581.5	580.5
10°	585.4	581.5	565.0	562.1	560.2
12.5°	571.8	565.0	545.6	540.8	537.9
15°	553.4	545.6	524.3	517.5	513.7
17.5°	526.3	518.5	500.1	492.3	488.5
20°	498.1	486.5	472.9	466.2	462.3
22.5°	469.1	455.5	442.9	438.1	434.2
25°	441.0	426.4	411.9	410.0	404.1
27.5°	413.8	396.4	381.8	380.9	376.0
30°	384.8	366.3	350.8	351.8	347.0
32.5°	357.6	340.2	321.8	322.7	316.9
35°	329.5	311.1	293.7	292.7	286.9
37.5°	300.4	283.0	266.5	262.6	256.8
40°	274.3	256.8	239.4	232.6	226.8
42.5°	246.2	230.7	215.2	204.5	196.7
45°	218.1	204.5	190.0	176.4	167.7
47.5°	190.9	180.3	167.7	151.2	145.4
50°	163.8	156.0	145.4	130.8	127.9
52.5°	135.7	132.8	126.0	116.3	115.3
55°	105.6	111.5	107.6	103.7	102.7
57.5°	89.2	90.1	93.0	92.1	92.1
60°	76.6	76.6	80.4	81.4	81.4
62.5°	64.9	65.9	69.8	71.7	71.7
65°	55.2	56.2	59.1	62.0	63.0
67.5°	45.6	47.5	50.4	53.3	54.3
70°	36.8	38.8	42.6	45.6	46.5
72.5°	30.0	31.0	34.9	37.8	38.8
75°	23.3	24.2	27.1	31.0	32.0
77.5°	16.5	18.4	21.3	24.2	26.2
80°	11.6	12.6	14.5	18.4	19.4
82.5°	6.8	7.8	9.7	12.6	13.6
85°	1.9	2.9	3.9	6.8	8.7
87.5°	0.0	0.0	0.0	1.9	3.9
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	14.52	15.92	14.89	16.23	16.55	14.71	16.10	15.07	16.42	16.73
	3H	15.66	16.90	16.04	17.23	17.60	16.17	17.41	16.55	17.74	18.10
	4H	16.01	17.17	16.41	17.52	17.90	16.71	17.87	17.11	18.22	18.60
	6H	16.19	17.26	16.61	17.63	18.03	17.12	18.19	17.54	18.56	18.96
	8H	16.22	17.24	16.65	17.63	18.03	17.25	18.27	17.68	18.66	19.06
	12H	16.21	17.18	16.64	17.56	17.99	17.33	18.30	17.76	18.69	19.12
4H	2H	14.98	16.15	15.38	16.50	16.88	15.13	16.30	15.53	16.65	17.03
	3H	16.32	17.28	16.74	17.68	18.09	16.80	17.76	17.22	18.17	18.57
	4H	16.77	17.63	17.20	18.04	18.48	17.47	18.33	17.90	18.75	19.19
	6H	17.04	17.78	17.50	18.23	18.69	18.00	18.75	18.47	19.19	19.66
	8H	17.08	17.78	17.55	18.22	18.69	18.17	18.87	18.64	19.31	19.78
	12H	17.08	17.69	17.56	18.17	18.65	18.29	18.91	18.78	19.39	19.86
8H	4H	16.98	17.67	17.45	18.12	18.59	17.62	18.31	18.09	18.76	19.23
	6H	17.33	17.90	17.83	18.39	18.87	18.25	18.82	18.75	19.31	19.79
	8H	17.41	17.92	17.92	18.43	18.92	18.48	18.99	19.00	19.51	20.00
	12H	17.42	17.87	17.93	18.37	18.93	18.67	19.12	19.18	19.61	20.18
12H	4H	16.99	17.61	17.48	18.09	18.56	17.60	18.22	18.09	18.70	19.17
	6H	17.35	17.86	17.87	18.38	18.87	18.24	18.75	18.76	19.27	19.76
	8H	17.47	17.92	17.98	18.41	18.98	18.52	18.97	19.03	19.46	20.03