

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: P1058557

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058557
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-H865D927-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

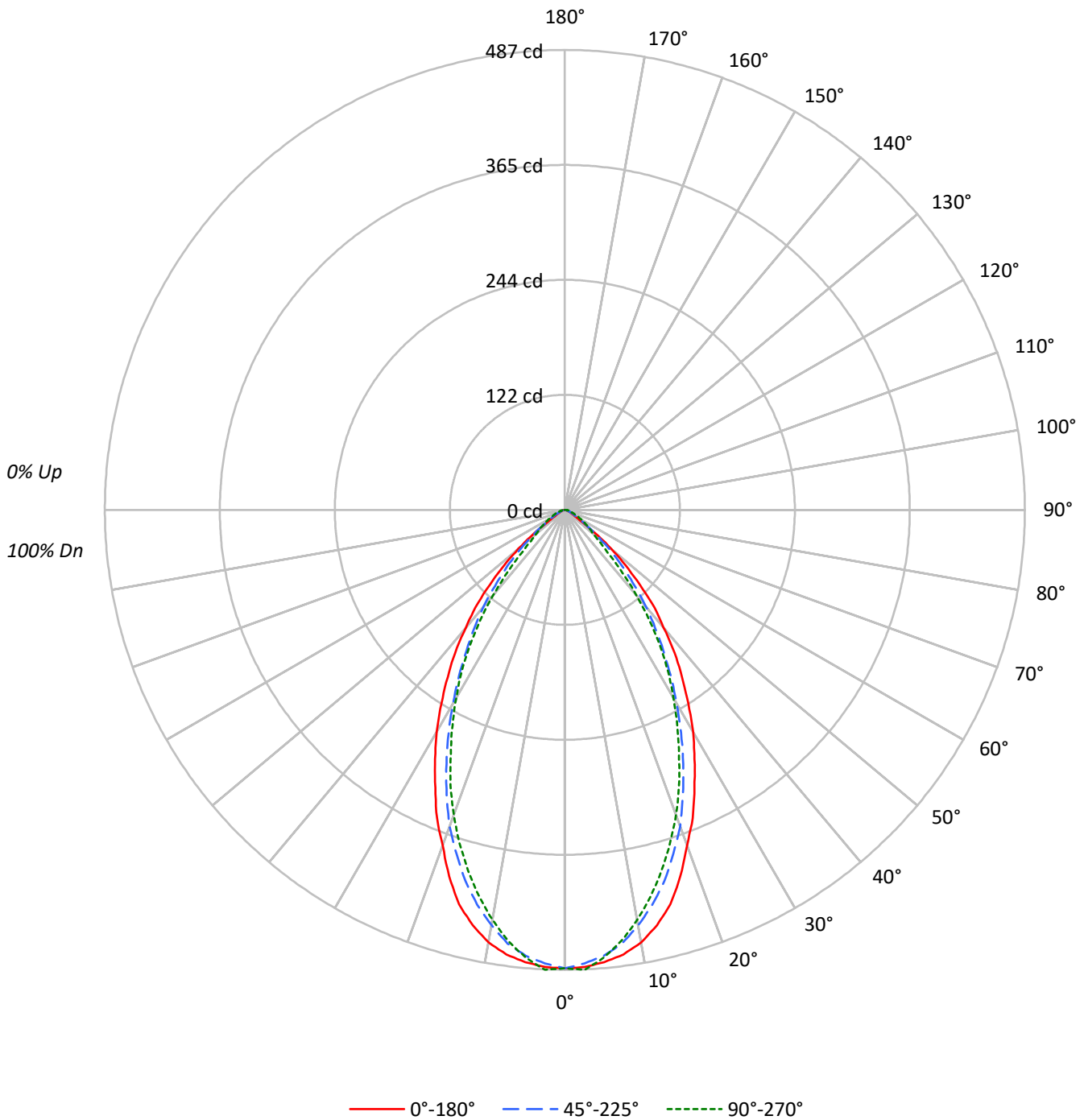
Lumens per Lamp: N/A
Luminaire Lumens: 522.2 lumens
Efficiency: N/A
Efficacy: 16.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8959	8959	8959
5°	8904	8778	8813
10°	8717	8370	8261
15°	8256	7775	7553
20°	7421	7002	6755
25°	6609	6037	5821
30°	5781	5039	4894
35°	4868	4082	3951
40°	3922	3221	2847
45°	2933	2328	1694
50°	1837	1501	1114
55°	624	811	904
60°	358	502	716
65°	253	341	550
70°	210	259	421
75°	135	207	342
80°	106	202	308
85°	0	0	212

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2933 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.7	8.6
10°-20°	114.6	21.9
20°-30°	137.9	26.4
30°-40°	117.8	22.6
40°-50°	69.0	13.2
50°-60°	25.0	4.8
60°-70°	8.9	1.7
70°-80°	3.5	0.7
80°-90°	0.6	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°	297.2	56.9
0°-40°	415.1	79.5
0°-60°	509.1	97.5
0°-90°	522.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	522.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	481	482	474	476	476	45
15°	432	425	407	399	395	120
25°	325	311	296	292	286	149
35°	216	200	181	179	175	135
45°	112	101	89	75	65	87
55°	19	27	25	26	28	24
65°	6	7	8	11	13	6
75°	2	3	3	4	5	2
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°	485.5	485.5	485.5	485.5	485.5
2.5°	484.5	485.5	480.7	485.5	487.4
5°	480.7	481.6	473.9	475.8	475.8
7.5°	474.8	473.9	463.2	461.3	460.3
10°	465.2	462.3	446.7	443.8	440.9
12.5°	450.6	444.8	428.3	423.5	419.6
15°	432.2	425.4	407.0	399.3	395.4
17.5°	407.0	399.3	381.8	374.1	370.2
20°	377.9	370.2	356.6	347.9	344.0
22.5°	353.7	341.1	326.6	320.8	315.9
25°	324.6	311.1	296.5	291.7	285.9
27.5°	297.5	281.0	266.5	262.6	257.8
30°	271.3	253.9	236.5	236.5	229.7
32.5°	243.2	226.8	208.4	207.4	203.5
35°	216.1	199.6	181.2	179.3	175.4
37.5°	190.9	174.4	157.0	151.2	146.3
40°	162.8	148.3	133.7	124.0	118.2
42.5°	140.5	124.0	109.5	97.9	90.1
45°	112.4	100.8	89.2	74.6	64.9
47.5°	87.2	79.5	69.8	53.3	48.5
50°	64.0	60.1	52.3	39.7	38.8
52.5°	40.7	42.6	37.8	31.0	33.9
55°	19.4	27.1	25.2	26.2	28.1
57.5°	12.6	13.6	18.4	21.3	23.3
60°	9.7	9.7	13.6	17.4	19.4
62.5°	7.8	7.8	10.7	14.5	15.5
65°	5.8	6.8	7.8	10.7	12.6
67.5°	4.8	4.8	5.8	8.7	9.7
70°	3.9	3.9	4.8	6.8	7.8
72.5°	2.9	2.9	3.9	5.8	5.8
75°	1.9	2.9	2.9	3.9	4.8
77.5°	1.9	1.9	1.9	2.9	3.9
80°	1.0	1.0	1.9	1.9	2.9
82.5°	1.0	1.0	1.0	1.0	1.9
85°	0.0	0.0	0.0	1.0	1.0
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	3.51	4.68	3.88	4.99	5.31	6.89	8.06	7.26	8.37	8.68
	3H	4.03	5.05	4.41	5.38	5.75	7.63	8.65	8.01	8.98	9.35
	4H	4.16	5.11	4.56	5.46	5.85	7.84	8.79	8.25	9.14	9.53
	6H	4.23	5.10	4.65	5.47	5.86	7.99	8.86	8.41	9.23	9.63
	8H	4.24	5.06	4.67	5.45	5.85	8.02	8.84	8.45	9.23	9.64
	12H	4.20	4.98	4.64	5.37	5.80	8.02	8.80	8.46	9.19	9.62
4H	2H	3.83	4.78	4.23	5.13	5.51	6.86	7.81	7.27	8.16	8.55
	3H	4.48	5.25	4.89	5.65	6.06	7.74	8.51	8.16	8.92	9.32
	4H	4.72	5.40	5.15	5.82	6.27	8.02	8.70	8.46	9.13	9.57
	6H	4.83	5.42	5.30	5.87	6.34	8.25	8.83	8.71	9.28	9.75
	8H	4.85	5.40	5.33	5.85	6.32	8.29	8.83	8.76	9.28	9.76
	12H	4.82	5.30	5.31	5.78	6.26	8.31	8.79	8.80	9.27	9.75
8H	4H	4.82	5.37	5.29	5.81	6.29	7.95	8.50	8.42	8.95	9.42
	6H	4.98	5.43	5.49	5.93	6.41	8.21	8.65	8.71	9.15	9.63
	8H	5.04	5.43	5.56	5.95	6.45	8.27	8.66	8.80	9.18	9.68
	12H	5.02	5.36	5.53	5.86	6.44	8.33	8.68	8.85	9.18	9.75
12H	4H	4.80	5.28	5.29	5.77	6.24	7.90	8.38	8.39	8.87	9.34
	6H	4.98	5.38	5.51	5.90	6.39	8.16	8.55	8.69	9.07	9.57
	8H	5.06	5.41	5.58	5.91	6.48	8.24	8.59	8.76	9.09	9.66