

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: P1058558

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058558
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)
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-S
Description: DEFINE 2 SILVER 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

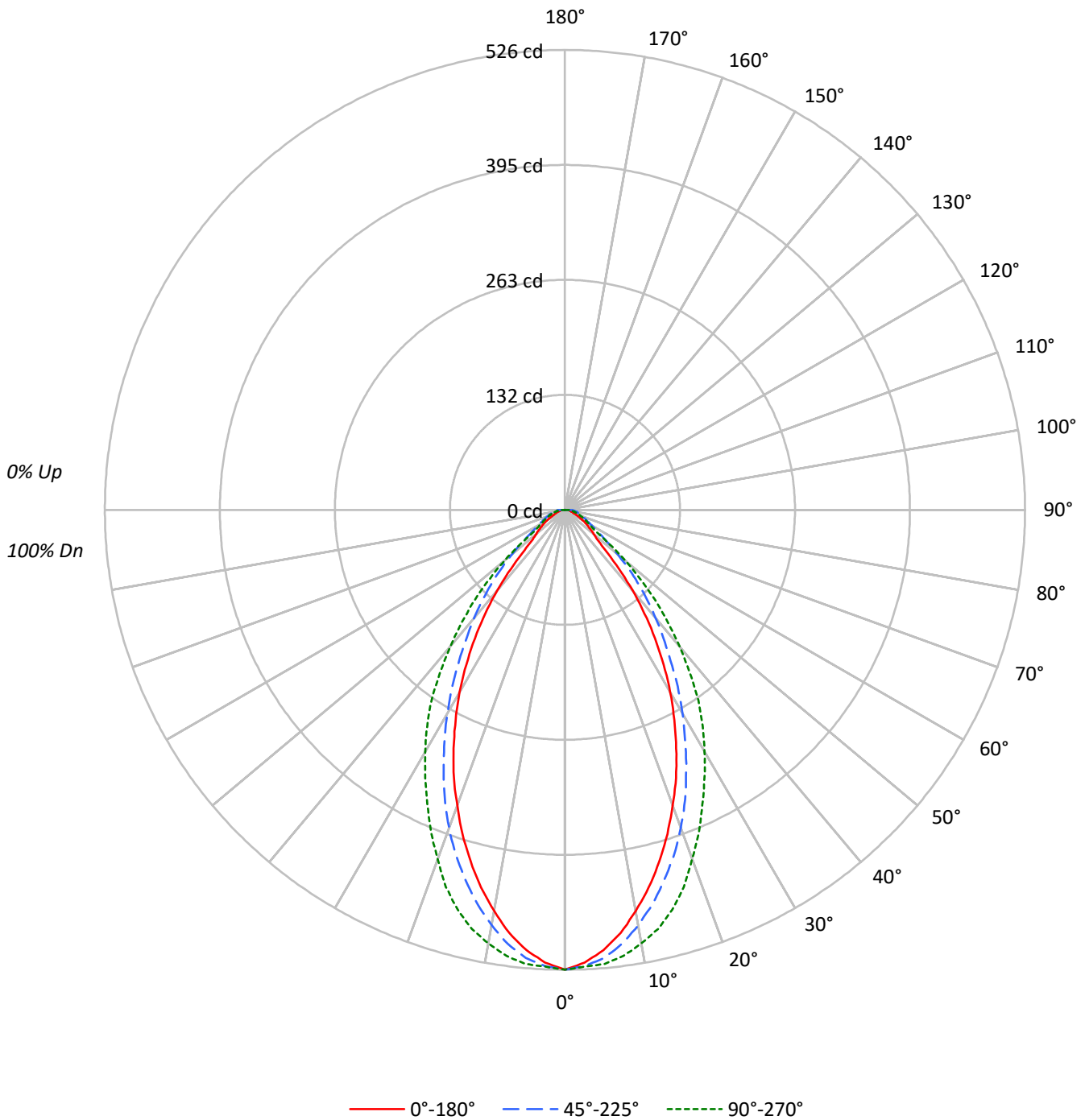
Lumens per Lamp: N/A
Luminaire Lumens: 634.5 lumens
Efficiency: N/A
Efficacy: 20.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9704	9704	9704
5°	9365	9526	9652
10°	8728	9037	9436
15°	7953	8379	9045
20°	7069	7603	8346
25°	6124	6678	7568
30°	5129	5727	6803
35°	4043	4744	5990
40°	2898	3881	4909
45°	1696	3064	3800
50°	1226	2228	2564
55°	1029	1592	1342
60°	823	1288	1148
65°	677	1144	1061
70°	577	1101	993
75°	556	1176	970
80°	616	1445	1031
85°	1037	2265	1440

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3800 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	7.6
10°-20°	123.5	19.5
20°-30°	151.7	23.9
30°-40°	134.2	21.1
40°-50°	85.6	13.5
50°-60°	41.8	6.6
60°-70°	24.9	3.9
70°-80°	15.9	2.5
80°-90°	8.8	1.4
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°	323.4	51.0
0°-40°	457.6	72.1
0°-60°	585.0	92.2
0°-90°	634.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	634.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	506	516	514	516	521	47
15°	416	428	439	458	474	116
25°	301	312	328	348	372	138
35°	180	189	211	240	266	111
45°	65	84	117	132	146	55
55°	32	43	50	47	42	29
65°	16	29	26	24	24	16
75°	8	18	16	15	14	9
85°	5	10	11	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	525.9	525.9	525.9	525.9	525.9
2.5°	518.2	527.9	522.1	522.1	523.0
5°	505.6	516.2	514.3	516.2	521.1
7.5°	488.1	498.8	500.7	508.5	514.3
10°	465.8	476.5	482.3	494.9	503.6
12.5°	442.5	453.2	461.9	478.4	491.0
15°	416.3	427.9	438.6	458.0	473.5
17.5°	389.1	400.8	414.3	433.8	452.2
20°	360.0	370.7	387.2	405.6	425.0
22.5°	331.9	341.6	359.0	376.5	399.8
25°	300.8	311.5	328.0	348.4	371.7
27.5°	270.7	281.4	297.9	321.2	345.5
30°	240.7	250.4	268.8	293.1	319.3
32.5°	209.6	219.3	239.7	265.9	293.1
35°	179.5	189.2	210.6	239.7	265.9
37.5°	149.4	160.1	184.4	211.5	233.9
40°	120.3	132.9	161.1	184.4	203.8
42.5°	91.2	108.7	138.8	158.2	173.7
45°	65.0	83.5	117.4	132.0	145.6
47.5°	49.5	64.0	97.0	107.7	116.4
50°	42.7	52.4	77.6	85.4	89.3
52.5°	36.9	46.6	62.1	65.0	63.1
55°	32.0	42.7	49.5	46.6	41.7
57.5°	27.2	39.8	40.8	34.9	35.9
60°	22.3	35.9	34.9	30.1	31.1
62.5°	18.4	33.0	30.1	27.2	27.2
65°	15.5	29.1	26.2	24.3	24.3
67.5°	12.6	26.2	23.3	21.3	21.3
70°	10.7	23.3	20.4	18.4	18.4
72.5°	9.7	20.4	18.4	16.5	16.5
75°	7.8	17.5	16.5	14.6	13.6
77.5°	6.8	14.6	14.6	13.6	11.6
80°	5.8	12.6	13.6	11.6	9.7
82.5°	5.8	11.6	11.6	10.7	7.8
85°	4.9	9.7	10.7	9.7	6.8
87.5°	2.9	8.7	8.7	7.8	4.9
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	9.93	11.21	10.29	11.52	11.83	9.44	10.72	9.81	11.04	11.35
	3H	11.10	12.24	11.48	12.57	12.94	11.00	12.14	11.38	12.47	12.84
	4H	11.53	12.60	11.94	12.95	13.33	11.69	12.75	12.09	13.10	13.49
	6H	11.88	12.86	12.29	13.23	13.62	12.34	13.31	12.75	13.68	14.08
	8H	12.07	13.00	12.50	13.39	13.79	12.63	13.55	13.06	13.94	14.35
	12H	12.29	13.18	12.73	13.56	13.99	12.95	13.83	13.38	14.21	14.64
4H	2H	10.43	11.49	10.83	11.84	12.23	10.05	11.11	10.45	11.46	11.84
	3H	12.07	12.95	12.49	13.35	13.76	11.84	12.72	12.25	13.12	13.52
	4H	12.84	13.63	13.28	14.05	14.49	12.69	13.47	13.12	13.89	14.34
	6H	13.44	14.12	13.90	14.57	15.04	13.54	14.22	14.00	14.67	15.13
	8H	13.74	14.37	14.21	14.82	15.29	13.93	14.57	14.40	15.02	15.49
	12H	14.05	14.62	14.54	15.10	15.57	14.37	14.94	14.86	15.42	15.89
8H	4H	13.26	13.89	13.73	14.34	14.81	13.15	13.78	13.62	14.23	14.70
	6H	14.21	14.73	14.71	15.22	15.71	14.25	14.78	14.76	15.27	15.75
	8H	14.75	15.22	15.27	15.73	16.23	14.83	15.30	15.36	15.82	16.31
	12H	15.31	15.73	15.83	16.22	16.80	15.51	15.92	16.02	16.42	16.99
12H	4H	13.33	13.89	13.82	14.37	14.85	13.23	13.79	13.72	14.28	14.75
	6H	14.39	14.86	14.91	15.37	15.87	14.44	14.91	14.96	15.42	15.91
	8H	15.08	15.49	15.59	15.99	16.56	15.15	15.57	15.67	16.06	16.63