

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: P1058288

Luminaire Tested: S122RDR-H290D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058288
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-H290D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

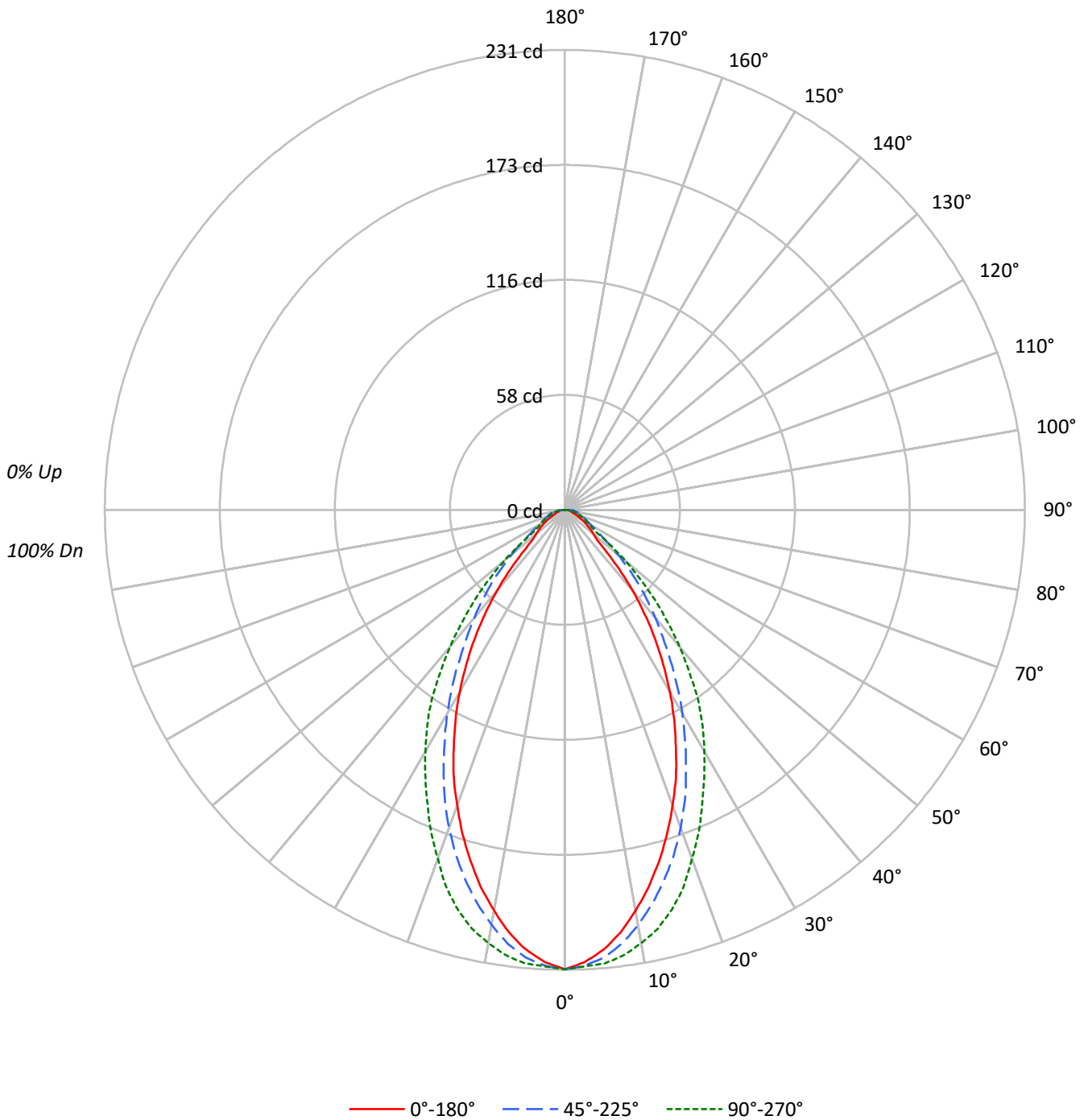
Lumens per Lamp: N/A
Luminaire Lumens: 278.4 lumens
Efficiency: N/A
Efficacy: 23.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4259	4259	4259
5°	4110	4181	4236
10°	3830	3967	4141
15°	3490	3677	3970
20°	3103	3336	3662
25°	2688	2930	3321
30°	2250	2514	2985
35°	1775	2081	2629
40°	1272	1703	2153
45°	744	1344	1668
50°	537	979	1125
55°	454	698	589
60°	362	565	502
65°	297	502	463
70°	254	480	437
75°	242	513	428
80°	276	638	457
85°	445	995	635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1668 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	7.6
10°-20°	54.2	19.5
20°-30°	66.6	23.9
30°-40°	58.9	21.1
40°-50°	37.6	13.5
50°-60°	18.3	6.6
60°-70°	10.9	3.9
70°-80°	7.0	2.5
80°-90°	3.8	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°	141.9	51.0
0°-40°	200.8	72.1
0°-60°	256.7	92.2
0°-90°	278.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	278.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	231	231	231	231	231	
5°	222	227	226	227	229	21
15°	183	188	192	201	208	51
25°	132	137	144	153	163	60
35°	79	83	92	105	117	49
45°	28	37	52	58	64	24
55°	14	19	22	20	18	13
65°	7	13	12	11	11	7
75°	3	8	7	6	6	4
85°	2	4	5	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	230.8	230.8	230.8	230.8	230.8
2.5°	227.4	231.7	229.1	229.1	229.5
5°	221.9	226.6	225.7	226.6	228.7
7.5°	214.2	218.9	219.8	223.2	225.7
10°	204.4	209.1	211.7	217.2	221.0
12.5°	194.2	198.9	202.7	210.0	215.5
15°	182.7	187.8	192.5	201.0	207.8
17.5°	170.8	175.9	181.9	190.4	198.5
20°	158.0	162.7	169.9	178.0	186.5
22.5°	145.7	149.9	157.6	165.2	175.5
25°	132.0	136.7	143.9	152.9	163.1
27.5°	118.8	123.5	130.7	141.0	151.6
30°	105.6	109.9	118.0	128.6	140.1
32.5°	92.0	96.2	105.2	116.7	128.6
35°	78.8	83.0	92.4	105.2	116.7
37.5°	65.6	70.3	80.9	92.8	102.6
40°	52.8	58.3	70.7	80.9	89.4
42.5°	40.0	47.7	60.9	69.4	76.2
45°	28.5	36.6	51.5	57.9	63.9
47.5°	21.7	28.1	42.6	47.3	51.1
50°	18.7	23.0	34.1	37.5	39.2
52.5°	16.2	20.4	27.3	28.5	27.7
55°	14.1	18.7	21.7	20.4	18.3
57.5°	11.9	17.5	17.9	15.3	15.8
60°	9.8	15.8	15.3	13.2	13.6
62.5°	8.1	14.5	13.2	11.9	11.9
65°	6.8	12.8	11.5	10.6	10.6
67.5°	5.5	11.5	10.2	9.4	9.4
70°	4.7	10.2	8.9	8.1	8.1
72.5°	4.3	8.9	8.1	7.2	7.2
75°	3.4	7.7	7.2	6.4	6.0
77.5°	3.0	6.4	6.4	6.0	5.1
80°	2.6	5.5	6.0	5.1	4.3
82.5°	2.6	5.1	5.1	4.7	3.4
85°	2.1	4.3	4.7	4.3	3.0
87.5°	1.3	3.8	3.8	3.4	2.1
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	7.07	8.35	7.44	8.67	8.98	6.58	7.86	6.95	8.17	8.49
	3H	8.24	9.38	8.62	9.71	10.08	8.15	9.29	8.53	9.62	9.99
	4H	8.67	9.74	9.08	10.09	10.47	8.84	9.90	9.24	10.25	10.63
	6H	9.02	10.00	9.44	10.37	10.77	9.49	10.46	9.90	10.84	11.23
	8H	9.22	10.15	9.66	10.54	10.95	9.78	10.70	10.21	11.09	11.50
	12H	9.44	10.33	9.87	10.71	11.14	10.10	10.98	10.53	11.36	11.79
4H	2H	7.57	8.64	7.98	8.99	9.37	7.18	8.24	7.58	8.59	8.98
	3H	9.21	10.09	9.62	10.49	10.89	8.99	9.86	9.40	10.27	10.67
	4H	9.98	10.76	10.41	11.18	11.63	9.83	10.62	10.27	11.04	11.48
	6H	10.58	11.26	11.05	11.71	12.18	10.69	11.37	11.15	11.82	12.28
	8H	10.89	11.52	11.35	11.97	12.44	11.08	11.72	11.55	12.17	12.64
	12H	11.20	11.76	11.68	12.24	12.72	11.52	12.09	12.01	12.57	13.04
8H	4H	10.40	11.03	10.87	11.48	11.95	10.29	10.93	10.76	11.37	11.84
	6H	11.34	11.87	11.85	12.36	12.84	11.40	11.92	11.90	12.42	12.90
	8H	11.89	12.36	12.41	12.88	13.37	11.98	12.45	12.50	12.97	13.46
	12H	12.46	12.88	12.98	13.37	13.94	12.66	13.07	13.17	13.57	14.14
12H	4H	10.47	11.03	10.95	11.51	11.99	10.37	10.93	10.86	11.42	11.89
	6H	11.53	12.00	12.05	12.51	13.01	11.59	12.06	12.11	12.57	13.06
	8H	12.22	12.64	12.74	13.13	13.70	12.30	12.71	12.81	13.21	13.78