

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: P1058279

Luminaire Tested: S122RDR-H290D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058279
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-H290D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

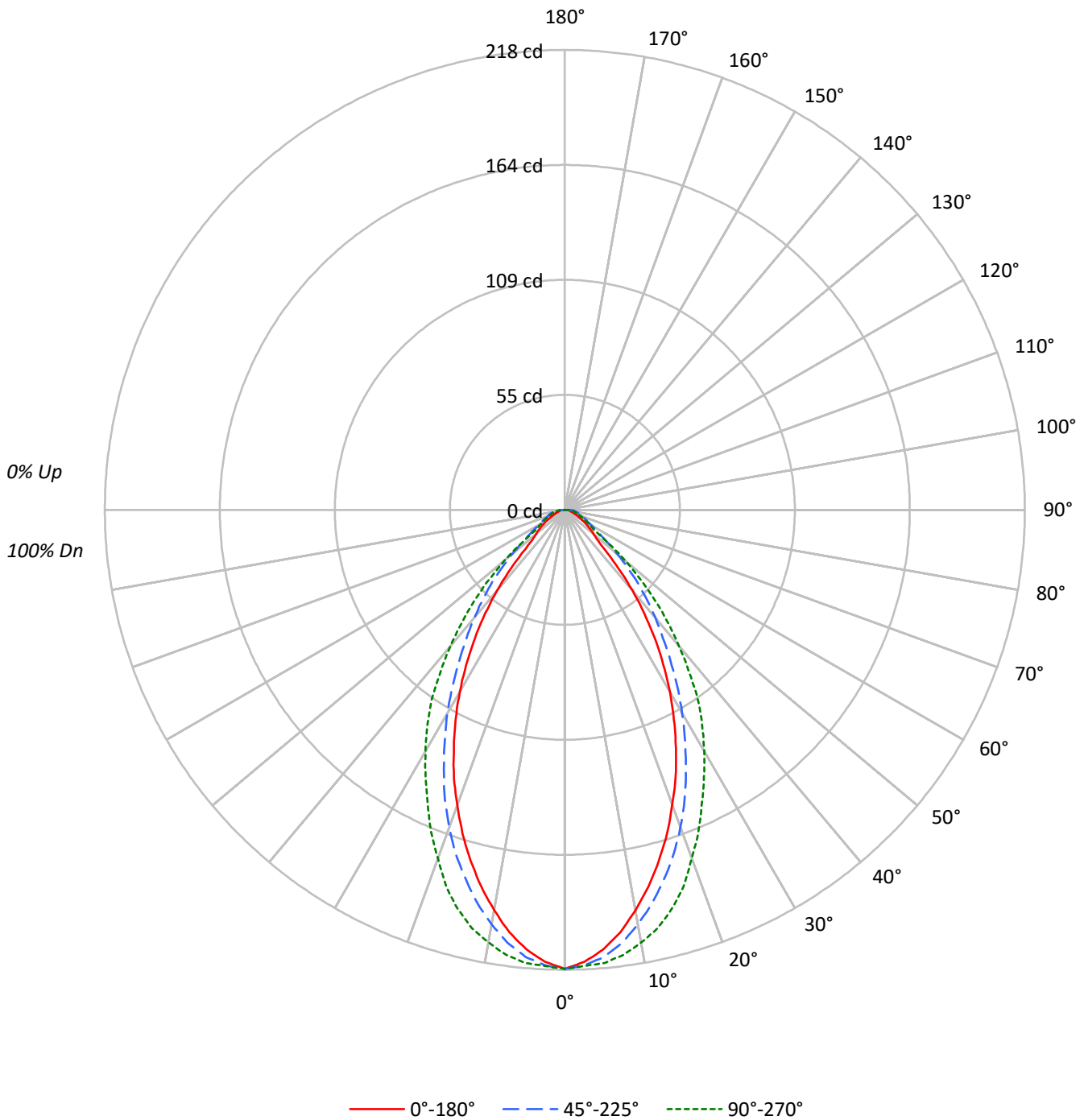
Lumens per Lamp: N/A
Luminaire Lumens: 262.4 lumens
Efficiency: N/A
Efficacy: 22.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4015	4015	4015
5°	3873	3940	3994
10°	3611	3738	3903
15°	3290	3465	3742
20°	2924	3146	3452
25°	2533	2763	3129
30°	2120	2369	2815
35°	1674	1962	2478
40°	1200	1604	2031
45°	702	1268	1571
50°	508	921	1059
55°	425	660	557
60°	340	535	472
65°	279	472	437
70°	237	453	410
75°	228	485	399
80°	255	595	425
85°	423	932	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1571 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	7.6
10°-20°	51.1	19.5
20°-30°	62.8	23.9
30°-40°	55.5	21.1
40°-50°	35.4	13.5
50°-60°	17.3	6.6
60°-70°	10.3	3.9
70°-80°	6.5	2.5
80°-90°	3.6	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°	133.8	51.0
0°-40°	189.3	72.1
0°-60°	242.0	92.2
0°-90°	262.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	262.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	209	214	213	214	216	19
15°	172	177	181	190	196	48
25°	124	129	136	144	154	57
35°	74	78	87	99	110	46
45°	27	34	49	55	60	23
55°	13	18	20	19	17	12
65°	6	12	11	10	10	6
75°	3	7	7	6	6	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	217.6	217.6	217.6	217.6	217.6
2.5°	214.4	218.4	216.0	216.0	216.4
5°	209.1	213.5	212.7	213.5	215.6
7.5°	201.9	206.3	207.1	210.3	212.7
10°	192.7	197.1	199.5	204.7	208.3
12.5°	183.0	187.5	191.1	197.9	203.1
15°	172.2	177.0	181.4	189.5	195.9
17.5°	161.0	165.8	171.4	179.4	187.1
20°	148.9	153.3	160.2	167.8	175.8
22.5°	137.3	141.3	148.5	155.7	165.4
25°	124.4	128.9	135.7	144.1	153.7
27.5°	112.0	116.4	123.2	132.9	142.9
30°	99.5	103.6	111.2	121.2	132.1
32.5°	86.7	90.7	99.1	110.0	121.2
35°	74.3	78.3	87.1	99.1	110.0
37.5°	61.8	66.2	76.3	87.5	96.7
40°	49.8	55.0	66.6	76.3	84.3
42.5°	37.7	45.0	57.4	65.4	71.9
45°	26.9	34.5	48.6	54.6	60.2
47.5°	20.5	26.5	40.1	44.6	48.2
50°	17.7	21.7	32.1	35.3	36.9
52.5°	15.3	19.3	25.7	26.9	26.1
55°	13.2	17.7	20.5	19.3	17.3
57.5°	11.2	16.5	16.9	14.5	14.9
60°	9.2	14.9	14.5	12.4	12.8
62.5°	7.6	13.6	12.4	11.2	11.2
65°	6.4	12.0	10.8	10.0	10.0
67.5°	5.2	10.8	9.6	8.8	8.8
70°	4.4	9.6	8.4	7.6	7.6
72.5°	4.0	8.4	7.6	6.8	6.8
75°	3.2	7.2	6.8	6.0	5.6
77.5°	2.8	6.0	6.0	5.6	4.8
80°	2.4	5.2	5.6	4.8	4.0
82.5°	2.4	4.8	4.8	4.4	3.2
85°	2.0	4.0	4.4	4.0	2.8
87.5°	1.2	3.6	3.6	3.2	2.0
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	6.87	8.15	7.24	8.46	8.78	6.40	7.68	6.77	8.00	8.31
	3H	8.04	9.17	8.42	9.50	9.87	7.95	9.09	8.33	9.42	9.78
	4H	8.46	9.52	8.86	9.87	10.26	8.63	9.69	9.03	10.04	10.42
	6H	8.80	9.78	9.22	10.15	10.55	9.27	10.25	9.69	10.62	11.01
	8H	9.00	9.92	9.43	10.31	10.72	9.56	10.48	9.99	10.87	11.28
	12H	9.22	10.10	9.65	10.48	10.91	9.87	10.76	10.31	11.14	11.57
4H	2H	7.37	8.43	7.77	8.78	9.16	6.99	8.06	7.40	8.41	8.79
	3H	9.00	9.87	9.41	10.28	10.68	8.78	9.65	9.19	10.06	10.46
	4H	9.76	10.54	10.19	10.96	11.41	9.62	10.40	10.05	10.82	11.26
	6H	10.36	11.04	10.82	11.48	11.95	10.47	11.15	10.93	11.59	12.06
	8H	10.66	11.29	11.13	11.74	12.21	10.86	11.49	11.33	11.94	12.41
	12H	10.97	11.53	11.46	12.01	12.49	11.29	11.85	11.78	12.34	12.81
8H	4H	10.17	10.81	10.64	11.26	11.73	10.07	10.71	10.54	11.15	11.62
	6H	11.12	11.64	11.62	12.14	12.62	11.18	11.70	11.68	12.19	12.68
	8H	11.67	12.13	12.19	12.65	13.14	11.75	12.22	12.27	12.74	13.23
	12H	12.23	12.64	12.74	13.14	13.71	12.42	12.84	12.94	13.33	13.90
12H	4H	10.24	10.81	10.73	11.29	11.76	10.15	10.72	10.64	11.20	11.67
	6H	11.30	11.77	11.82	12.29	12.78	11.36	11.83	11.88	12.34	12.84
	8H	11.99	12.41	12.51	12.90	13.48	12.07	12.48	12.58	12.98	13.55