

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057871

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

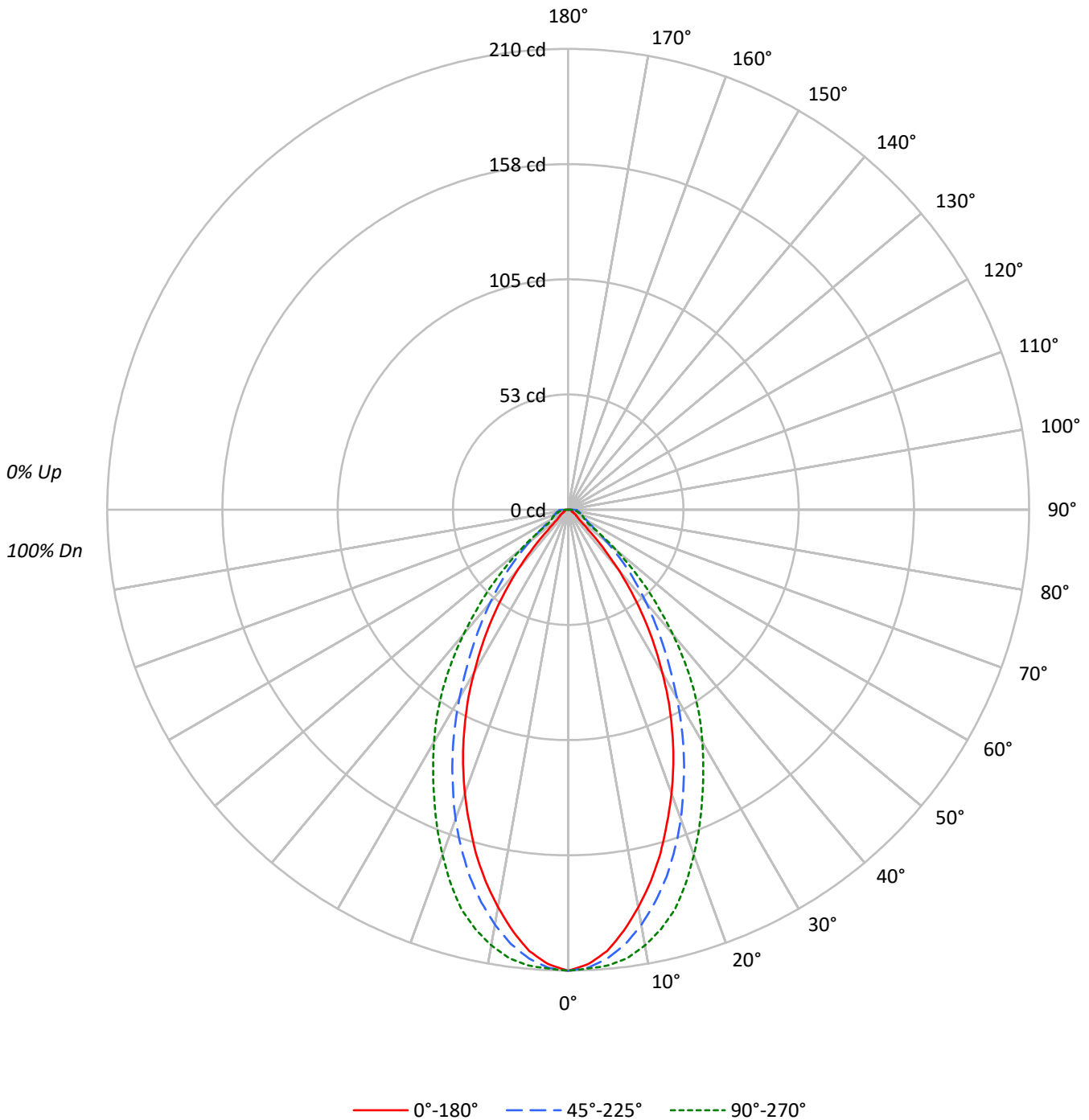
Lumens per Lamp: N/A
Luminaire Lumens: 226.4 lumens
Efficiency: N/A
Efficacy: 18.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3877	3877	3877
5°	3742	3803	3862
10°	3446	3598	3777
15°	3099	3307	3597
20°	2702	2947	3287
25°	2286	2541	2942
30°	1826	2109	2606
35°	1352	1696	2239
40°	853	1327	1785
45°	337	997	1313
50°	172	669	810
55°	142	441	364
60°	103	358	328
65°	87	332	332
70°	86	345	324
75°	114	399	342
80°	170	510	383
85°	254	847	508

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.2	8.5
10°-20°	48.5	21.4
20°-30°	57.7	25.5
30°-40°	48.0	21.2
40°-50°	26.8	11.8
50°-60°	10.8	4.8
60°-70°	6.9	3.1
70°-80°	5.2	2.3
80°-90°	3.3	1.5
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°	125.4	55.4
0°-40°	173.4	76.6
0°-60°	211.0	93.2
0°-90°	226.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	226.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	210	210	210	210	210	
5°	202	206	205	207	208	19
15°	162	167	173	182	188	45
25°	112	117	125	134	144	51
35°	60	66	75	88	99	37
45°	13	22	38	45	50	12
55°	4	9	14	13	11	4
65°	2	8	8	7	8	2
75°	2	6	6	5	5	2
85°	1	4	4	4	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	210.1	210.1	210.1	210.1	210.1
2.5°	207.3	210.5	208.9	208.9	209.3
5°	202.0	205.7	205.3	206.9	208.5
7.5°	193.6	197.6	199.6	203.2	206.1
10°	183.9	188.3	192.0	197.6	201.6
12.5°	173.5	177.9	183.1	190.4	195.6
15°	162.2	167.0	173.1	181.9	188.3
17.5°	149.7	154.9	161.8	171.4	178.3
20°	137.6	142.9	150.1	159.8	167.4
22.5°	125.2	129.6	137.2	146.9	156.2
25°	112.3	116.7	124.8	134.4	144.5
27.5°	99.4	103.8	111.9	121.9	133.2
30°	85.7	90.6	99.0	110.3	122.3
32.5°	72.8	77.7	86.5	99.0	111.1
35°	60.0	65.6	75.3	87.7	99.4
37.5°	47.5	53.9	64.8	76.5	86.9
40°	35.4	42.3	55.1	65.2	74.1
42.5°	23.3	31.4	46.3	54.7	61.6
45°	12.9	21.7	38.2	44.7	50.3
47.5°	7.2	14.1	30.2	35.4	38.6
50°	6.0	10.5	23.3	27.0	28.2
52.5°	4.8	9.7	17.7	19.7	18.9
55°	4.4	9.3	13.7	13.3	11.3
57.5°	3.6	9.3	10.9	9.7	9.7
60°	2.8	8.9	9.7	8.5	8.9
62.5°	2.4	8.5	8.9	8.0	8.0
65°	2.0	8.0	7.6	7.2	7.6
67.5°	1.6	7.2	7.2	6.8	6.8
70°	1.6	6.8	6.4	6.0	6.0
72.5°	1.6	6.0	6.0	5.6	5.6
75°	1.6	5.6	5.6	5.2	4.8
77.5°	1.6	4.8	5.2	4.8	4.4
80°	1.6	4.4	4.8	4.4	3.6
82.5°	1.6	4.0	4.4	4.0	3.2
85°	1.2	3.6	4.0	3.6	2.4
87.5°	1.2	3.6	4.0	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	3.10	4.32	3.47	4.63	4.95	4.18	5.40	4.54	5.71	6.03
	3H	4.41	5.49	4.79	5.82	6.19	6.18	7.26	6.56	7.59	7.96
	4H	4.98	5.99	5.38	6.34	6.72	7.12	8.13	7.52	8.48	8.87
	6H	5.54	6.46	5.95	6.84	7.23	8.06	8.99	8.48	9.36	9.75
	8H	5.86	6.74	6.29	7.13	7.53	8.51	9.39	8.94	9.78	10.18
	12H	6.16	7.00	6.60	7.39	7.82	8.93	9.77	9.36	10.15	10.58
4H	2H	4.05	5.06	4.45	5.41	5.79	4.84	5.85	5.25	6.20	6.59
	3H	6.05	6.88	6.46	7.29	7.69	7.10	7.93	7.51	8.33	8.74
	4H	7.12	7.87	7.56	8.29	8.74	8.24	8.98	8.67	9.40	9.85
	6H	7.99	8.64	8.45	9.08	9.55	9.40	10.05	9.86	10.49	10.96
	8H	8.40	9.00	8.87	9.45	9.92	9.96	10.56	10.43	11.01	11.48
	12H	8.78	9.31	9.26	9.80	10.27	10.50	11.03	10.99	11.52	11.99
8H	4H	7.89	8.49	8.36	8.94	9.41	8.78	9.39	9.25	9.84	10.31
	6H	9.22	9.72	9.73	10.22	10.70	10.23	10.73	10.74	11.22	11.71
	8H	9.94	10.38	10.46	10.90	11.39	10.99	11.44	11.52	11.95	12.45
	12H	10.63	11.02	11.14	11.52	12.09	11.78	12.17	12.29	12.67	13.24
12H	4H	8.04	8.58	8.53	9.06	9.54	8.89	9.42	9.38	9.91	10.38
	6H	9.54	9.99	10.07	10.51	11.00	10.46	10.90	10.98	11.42	11.91
	8H	10.45	10.84	10.96	11.33	11.91	11.36	11.75	11.88	12.25	12.82