

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: P1057934

Luminaire Tested: S122RDRP-S290D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057934
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-S290D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

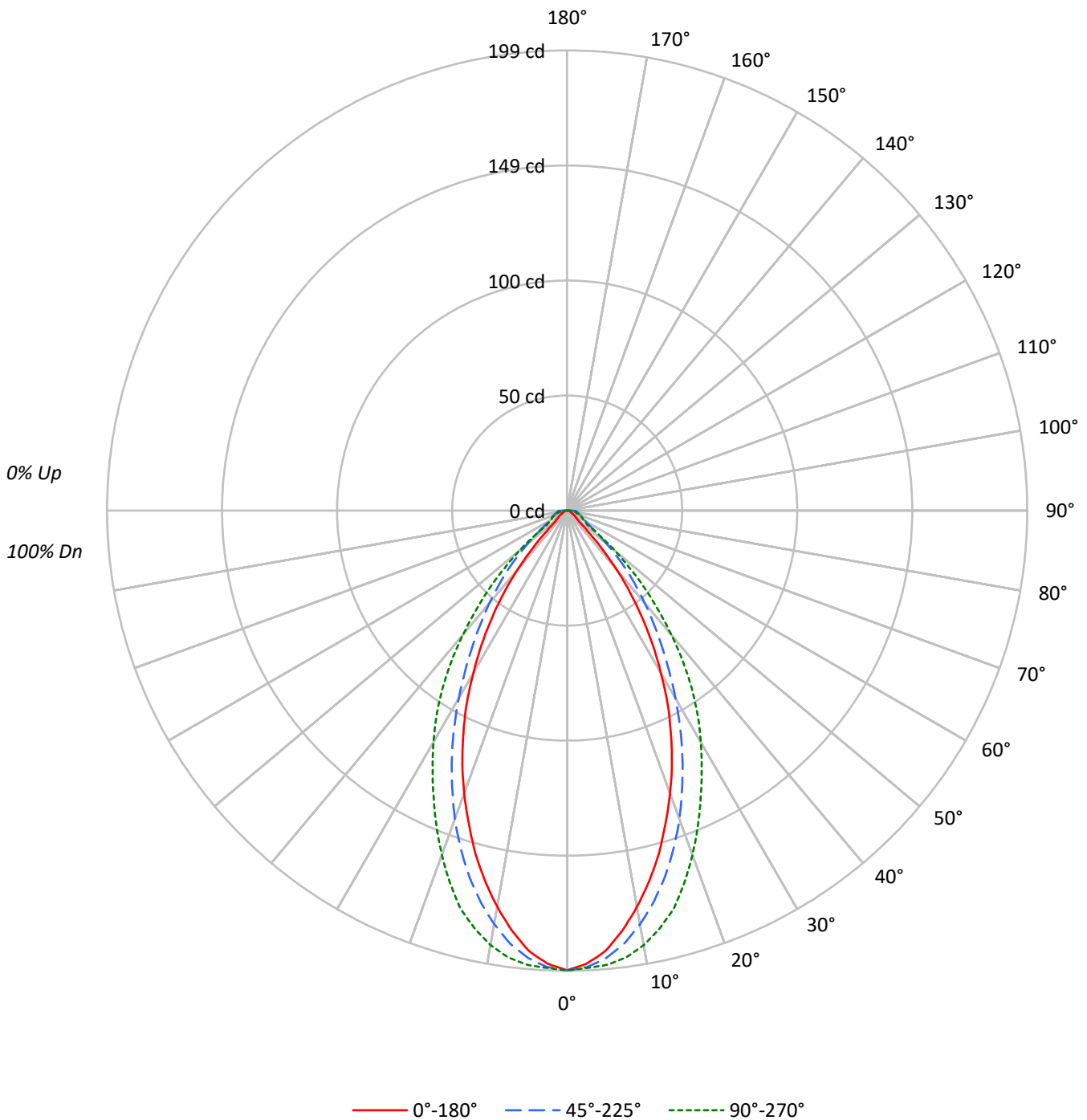
Lumens per Lamp: N/A
Luminaire Lumens: 214.2 lumens
Efficiency: N/A
Efficacy: 17.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3668	3668	3668
5°	3540	3597	3653
10°	3260	3403	3575
15°	2930	3127	3404
20°	2557	2788	3110
25°	2162	2402	2783
30°	1728	1996	2465
35°	1277	1604	2117
40°	807	1257	1689
45°	318	945	1242
50°	164	634	766
55°	135	415	344
60°	100	336	310
65°	83	314	314
70°	81	329	308
75°	107	378	328
80°	159	489	361
85°	233	805	487

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1608 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.2	8.5
10°-20°	45.9	21.4
20°-30°	54.6	25.5
30°-40°	45.4	21.2
40°-50°	25.4	11.8
50°-60°	10.2	4.8
60°-70°	6.6	3.1
70°-80°	4.9	2.3
80°-90°	3.1	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°	118.7	55.4
0°-40°	164.0	76.6
0°-60°	199.7	93.2
0°-90°	214.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	214.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	199	199	199	199	199	
5°	191	195	194	196	197	18
15°	153	158	164	172	178	43
25°	106	110	118	127	137	48
35°	57	62	71	83	94	35
45°	12	21	36	42	48	11
55°	4	9	13	13	11	4
65°	2	8	7	7	7	2
75°	2	5	5	5	5	2
85°	1	3	4	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	198.8	198.8	198.8	198.8	198.8
2.5°	196.1	199.1	197.6	197.6	198.0
5°	191.1	194.6	194.2	195.7	197.2
7.5°	183.1	186.9	188.9	192.3	194.9
10°	174.0	178.2	181.6	186.9	190.8
12.5°	164.1	168.3	173.2	180.1	185.0
15°	153.4	158.0	163.7	172.1	178.2
17.5°	141.6	146.6	153.1	162.2	168.7
20°	130.2	135.2	142.0	151.2	158.4
22.5°	118.4	122.6	129.8	139.0	147.7
25°	106.2	110.4	118.0	127.2	136.7
27.5°	94.0	98.2	105.8	115.4	126.0
30°	81.1	85.7	93.7	104.3	115.7
32.5°	68.9	73.5	81.9	93.7	105.1
35°	56.7	62.1	71.2	83.0	94.0
37.5°	44.9	51.0	61.3	72.3	82.2
40°	33.5	40.0	52.2	61.7	70.1
42.5°	22.1	29.7	43.8	51.8	58.3
45°	12.2	20.6	36.2	42.3	47.6
47.5°	6.9	13.3	28.6	33.5	36.6
50°	5.7	9.9	22.1	25.5	26.7
52.5°	4.6	9.1	16.8	18.7	17.9
55°	4.2	8.8	12.9	12.6	10.7
57.5°	3.4	8.8	10.3	9.1	9.1
60°	2.7	8.4	9.1	8.0	8.4
62.5°	2.3	8.0	8.4	7.6	7.6
65°	1.9	7.6	7.2	6.9	7.2
67.5°	1.5	6.9	6.9	6.5	6.5
70°	1.5	6.5	6.1	5.7	5.7
72.5°	1.5	5.7	5.7	5.3	5.3
75°	1.5	5.3	5.3	4.9	4.6
77.5°	1.5	4.6	4.9	4.6	4.2
80°	1.5	4.2	4.6	4.2	3.4
82.5°	1.5	3.8	4.2	3.8	3.0
85°	1.1	3.4	3.8	3.4	2.3
87.5°	1.1	3.4	3.8	3.0	1.9
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	2.91	4.13	3.27	4.44	4.75	3.93	5.15	4.29	5.46	5.78
	3H	4.24	5.32	4.62	5.65	6.02	5.98	7.06	6.36	7.39	7.76
	4H	4.80	5.81	5.20	6.16	6.54	6.93	7.94	7.34	8.29	8.68
	6H	5.35	6.28	5.77	6.66	7.05	7.88	8.81	8.30	9.18	9.58
	8H	5.67	6.55	6.10	6.94	7.35	8.32	9.20	8.75	9.59	10.00
	12H	5.97	6.81	6.40	7.19	7.62	8.74	9.58	9.18	9.97	10.40
4H	2H	3.85	4.86	4.26	5.22	5.60	4.61	5.62	5.01	5.97	6.35
	3H	5.88	6.71	6.30	7.12	7.52	6.90	7.74	7.32	8.14	8.55
	4H	6.95	7.70	7.38	8.12	8.56	8.05	8.79	8.48	9.21	9.66
	6H	7.82	8.47	8.29	8.92	9.38	9.23	9.87	9.69	10.32	10.79
	8H	8.23	8.83	8.70	9.28	9.75	9.78	10.38	10.25	10.83	11.30
	12H	8.59	9.13	9.08	9.61	10.09	10.32	10.86	10.81	11.34	11.82
8H	4H	7.71	8.32	8.18	8.77	9.24	8.60	9.20	9.07	9.65	10.12
	6H	9.06	9.56	9.57	10.06	10.54	10.06	10.56	10.57	11.06	11.54
	8H	9.77	10.22	10.30	10.73	11.23	10.82	11.27	11.34	11.78	12.28
	12H	10.45	10.84	10.97	11.34	11.91	11.60	12.00	12.12	12.49	13.07
12H	4H	7.87	8.41	8.36	8.89	9.37	8.71	9.24	9.19	9.72	10.20
	6H	9.39	9.83	9.91	10.35	10.84	10.29	10.74	10.82	11.25	11.75
	8H	10.28	10.68	10.80	11.17	11.74	11.19	11.59	11.71	12.08	12.65