

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: P1058342

Luminaire Tested: S122RDR-H290D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058342
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-H290D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

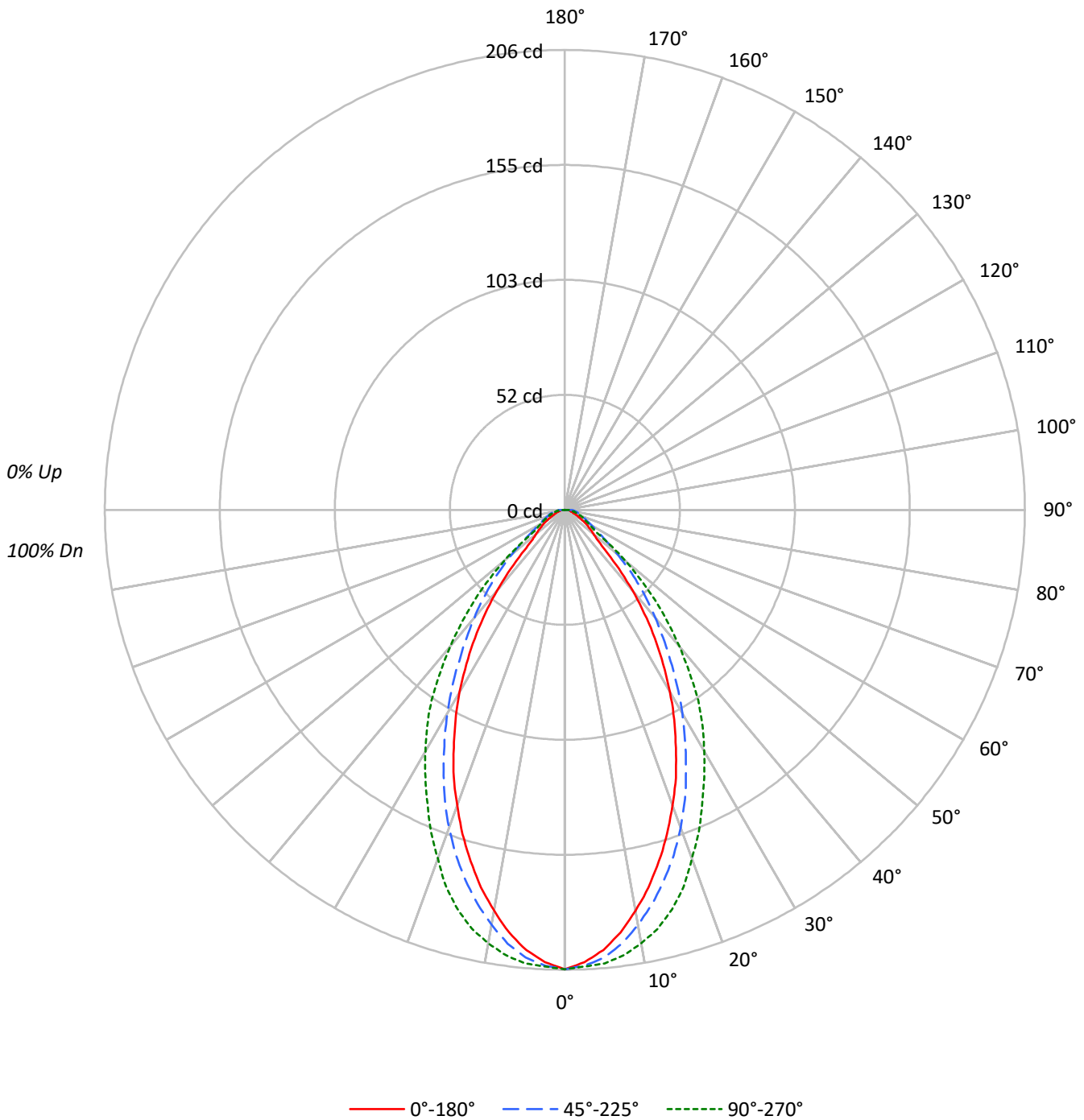
Lumens per Lamp: N/A
Luminaire Lumens: 248.3 lumens
Efficiency: N/A
Efficacy: 21.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1058342

CATALOG NUMBER: S122RDR-H290D940-X4F0-XX-UDD-SVL-S

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	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°	3798	3798	3798
5°	3666	3729	3777
10°	3416	3536	3693
15°	3112	3280	3540
20°	2767	2975	3266
25°	2396	2614	2960
30°	2007	2242	2661
35°	1584	1856	2345
40°	1135	1518	1920
45°	663	1200	1487
50°	479	873	1002
55°	402	624	524
60°	321	506	450
65°	266	450	415
70°	227	432	388
75°	214	463	378
80°	244	563	404
85°	402	889	572

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1487 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.9	7.6
10°-20°	48.3	19.5
20°-30°	59.4	23.9
30°-40°	52.5	21.1
40°-50°	33.5	13.5
50°-60°	16.3	6.6
60°-70°	9.8	3.9
70°-80°	6.2	2.5
80°-90°	3.4	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°	126.6	51.0
0°-40°	179.1	72.1
0°-60°	228.9	92.2
0°-90°	248.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	248.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	206	206	206	206	206	
5°	198	202	201	202	204	18
15°	163	168	172	179	185	45
25°	118	122	128	136	145	54
35°	70	74	82	94	104	44
45°	25	33	46	52	57	21
55°	12	17	19	18	16	11
65°	6	11	10	10	10	6
75°	3	7	6	6	5	3
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°	205.8	205.8	205.8	205.8	205.8
2.5°	202.8	206.6	204.3	204.3	204.7
5°	197.9	202.0	201.3	202.0	203.9
7.5°	191.0	195.2	196.0	199.0	201.3
10°	182.3	186.5	188.7	193.7	197.1
12.5°	173.2	177.3	180.8	187.2	192.2
15°	162.9	167.5	171.7	179.2	185.3
17.5°	152.3	156.8	162.2	169.8	177.0
20°	140.9	145.1	151.5	158.7	166.3
22.5°	129.9	133.7	140.5	147.3	156.5
25°	117.7	121.9	128.4	136.3	145.4
27.5°	106.0	110.1	116.6	125.7	135.2
30°	94.2	98.0	105.2	114.7	124.9
32.5°	82.0	85.8	93.8	104.1	114.7
35°	70.3	74.1	82.4	93.8	104.1
37.5°	58.5	62.7	72.2	82.8	91.5
40°	47.1	52.0	63.0	72.2	79.7
42.5°	35.7	42.5	54.3	61.9	68.0
45°	25.4	32.7	46.0	51.6	57.0
47.5°	19.4	25.1	38.0	42.2	45.6
50°	16.7	20.5	30.4	33.4	34.9
52.5°	14.4	18.2	24.3	25.4	24.7
55°	12.5	16.7	19.4	18.2	16.3
57.5°	10.6	15.6	15.9	13.7	14.1
60°	8.7	14.1	13.7	11.8	12.2
62.5°	7.2	12.9	11.8	10.6	10.6
65°	6.1	11.4	10.3	9.5	9.5
67.5°	4.9	10.3	9.1	8.4	8.4
70°	4.2	9.1	8.0	7.2	7.2
72.5°	3.8	8.0	7.2	6.5	6.5
75°	3.0	6.8	6.5	5.7	5.3
77.5°	2.7	5.7	5.7	5.3	4.6
80°	2.3	4.9	5.3	4.6	3.8
82.5°	2.3	4.6	4.6	4.2	3.0
85°	1.9	3.8	4.2	3.8	2.7
87.5°	1.1	3.4	3.4	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	6.67	7.95	7.04	8.27	8.58	6.21	7.49	6.57	7.80	8.11
	3H	7.85	8.99	8.23	9.32	9.68	7.77	8.91	8.15	9.24	9.60
	4H	8.27	9.33	8.68	9.68	10.07	8.45	9.51	8.85	9.86	10.25
	6H	8.62	9.60	9.04	9.97	10.36	9.10	10.08	9.52	10.45	10.84
	8H	8.82	9.75	9.25	10.14	10.54	9.38	10.31	9.82	10.70	11.11
	12H	9.04	9.93	9.47	10.31	10.74	9.70	10.59	10.14	10.97	11.40
4H	2H	7.18	8.24	7.58	8.59	8.98	6.81	7.87	7.21	8.22	8.60
	3H	8.82	9.70	9.23	10.10	10.50	8.61	9.48	9.02	9.89	10.29
	4H	9.58	10.36	10.01	10.78	11.22	9.44	10.23	9.88	10.65	11.09
	6H	10.18	10.86	10.64	11.31	11.77	10.30	10.98	10.77	11.43	11.90
	8H	10.48	11.12	10.95	11.57	12.04	10.69	11.33	11.16	11.77	12.24
	12H	10.80	11.36	11.29	11.85	12.32	11.13	11.69	11.62	12.18	12.65
8H	4H	10.00	10.63	10.46	11.08	11.55	9.90	10.54	10.37	10.98	11.46
	6H	10.94	11.47	11.45	11.96	12.44	11.01	11.54	11.52	12.03	12.51
	8H	11.50	11.97	12.02	12.48	12.97	11.59	12.06	12.11	12.58	13.07
	12H	12.07	12.48	12.58	12.98	13.55	12.26	12.68	12.78	13.17	13.74
12H	4H	10.07	10.63	10.55	11.11	11.59	9.98	10.55	10.47	11.03	11.50
	6H	11.13	11.60	11.65	12.11	12.61	11.20	11.67	11.72	12.18	12.68
	8H	11.83	12.25	12.35	12.74	13.31	11.91	12.33	12.43	12.82	13.39