

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: P1058318

Luminaire Tested: S122RDR-H290D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058318  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H290D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

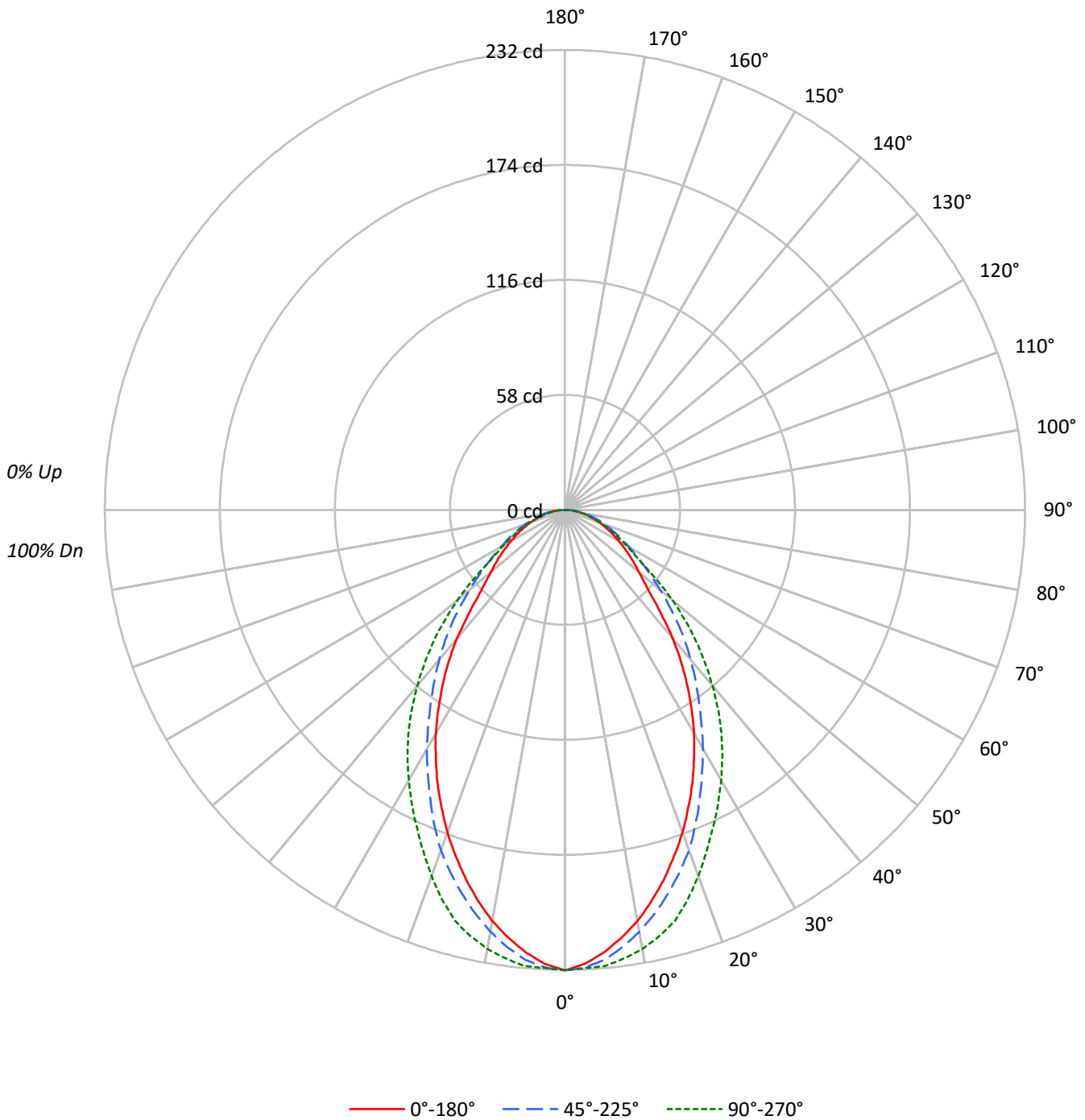
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 378.3 lumens  
Efficiency: N/A  
Efficacy: 32.3 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
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				
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4287	4287	4287
5°	4153	4221	4279
10°	3948	4049	4214
15°	3685	3832	4098
20°	3403	3590	3861
25°	3097	3274	3598
30°	2774	2968	3356
35°	2415	2651	3100
40°	2038	2373	2787
45°	1618	2095	2437
50°	1395	1800	2024
55°	1271	1541	1551
60°	1159	1369	1318
65°	1061	1236	1161
70°	982	1144	1036
75°	913	1084	913
80°	861	1041	829
85°	847	1080	720

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2437 cd/sqm

TEST NUMBER: P1058318

CATALOG NUMBER: S122RDR-H290D927-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.4	5.7
10°-20°	56.7	15.0
20°-30°	74.6	19.7
30°-40°	75.0	19.8
40°-50°	60.8	16.1
50°-60°	41.9	11.1
60°-70°	27.4	7.2
70°-80°	15.3	4.0
80°-90°	5.2	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°	152.7	40.4
0°-40°	227.8	60.2
0°-60°	330.4	87.4
0°-90°	378.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	378.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	232	232	232	232	232	
5°	224	229	228	229	231	21
15°	193	198	201	208	214	54
25°	152	156	161	168	177	70
35°	107	112	118	128	138	67
45°	62	69	80	87	93	49
55°	40	44	48	49	48	35
65°	24	29	28	27	27	24
75°	13	16	15	14	13	14
85°	4	5	5	4	3	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	232.3	232.3	232.3	232.3	232.3
2.5°	229.3	233.3	231.0	231.0	231.3
5°	224.2	228.6	227.9	229.0	231.0
7.5°	217.8	222.5	222.5	225.6	228.3
10°	210.7	215.5	216.1	220.9	224.9
12.5°	202.0	206.7	208.7	214.8	220.2
15°	192.9	197.6	200.6	208.0	214.5
17.5°	183.1	187.8	191.9	199.6	206.0
20°	173.3	177.7	182.8	189.5	196.6
22.5°	162.5	167.2	172.0	178.4	186.5
25°	152.1	156.1	160.8	167.9	176.7
27.5°	140.9	145.3	149.7	158.1	167.2
30°	130.2	134.5	139.3	148.0	157.5
32.5°	118.7	123.4	128.1	137.9	147.7
35°	107.2	112.3	117.7	128.1	137.6
37.5°	96.1	101.5	107.9	118.7	126.8
40°	84.6	90.4	98.5	107.9	115.7
42.5°	72.5	79.6	89.4	97.4	104.5
45°	62.0	69.1	80.3	87.3	93.4
47.5°	54.3	60.0	70.8	76.9	81.9
50°	48.6	52.9	62.7	67.1	70.5
52.5°	43.8	48.2	55.0	58.0	59.0
55°	39.5	43.8	47.9	48.9	48.2
57.5°	35.1	39.8	42.1	41.1	41.1
60°	31.4	36.4	37.1	35.7	35.7
62.5°	27.6	32.7	32.7	31.0	31.0
65°	24.3	29.0	28.3	27.0	26.6
67.5°	21.2	25.6	24.6	23.3	22.9
70°	18.2	22.3	21.2	19.6	19.2
72.5°	15.5	19.2	17.9	16.5	15.8
75°	12.8	15.8	15.2	13.5	12.8
77.5°	10.5	12.8	12.1	10.8	10.1
80°	8.1	10.1	9.8	8.4	7.8
82.5°	6.1	7.8	7.4	6.4	5.4
85°	4.0	5.4	5.1	4.4	3.4
87.5°	2.0	3.7	3.4	3.0	1.7
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	11.79	13.23	12.15	13.54	13.86	12.14	13.58	12.50	13.89	14.21
	3H	13.33	14.62	13.71	14.95	15.31	13.49	14.78	13.87	15.11	15.47
	4H	13.90	15.11	14.30	15.46	15.84	13.97	15.18	14.37	15.53	15.91
	6H	14.33	15.45	14.75	15.82	16.21	14.33	15.44	14.74	15.81	16.20
	8H	14.49	15.55	14.92	15.94	16.34	14.44	15.50	14.87	15.89	16.30
	12H	14.60	15.62	15.03	16.00	16.43	14.52	15.53	14.95	15.92	16.35
4H	2H	12.37	13.58	12.77	13.93	14.31	12.65	13.86	13.06	14.21	14.59
	3H	14.19	15.20	14.61	15.60	16.00	14.23	15.23	14.64	15.63	16.04
	4H	14.94	15.84	15.37	16.26	16.70	14.84	15.74	15.27	16.15	16.59
	6H	15.53	16.31	15.99	16.75	17.22	15.32	16.10	15.78	16.54	17.01
	8H	15.74	16.47	16.20	16.92	17.38	15.48	16.21	15.95	16.66	17.13
	12H	15.91	16.56	16.39	17.04	17.51	15.60	16.26	16.09	16.74	17.21
8H	4H	15.22	15.95	15.69	16.40	16.87	15.14	15.87	15.60	16.31	16.78
	6H	15.98	16.59	16.48	17.08	17.56	15.75	16.36	16.25	16.85	17.33
	8H	16.31	16.85	16.82	17.36	17.85	16.00	16.55	16.52	17.06	17.55
	12H	16.59	17.07	17.10	17.57	18.13	16.22	16.70	16.73	17.19	17.76
12H	4H	15.24	15.89	15.73	16.37	16.85	15.17	15.82	15.65	16.30	16.78
	6H	16.04	16.58	16.56	17.10	17.58	15.83	16.37	16.35	16.89	17.38
	8H	16.44	16.92	16.95	17.41	17.98	16.15	16.63	16.66	17.12	17.69