

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: P1058349

Luminaire Tested: S122RDR-H290D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058349
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

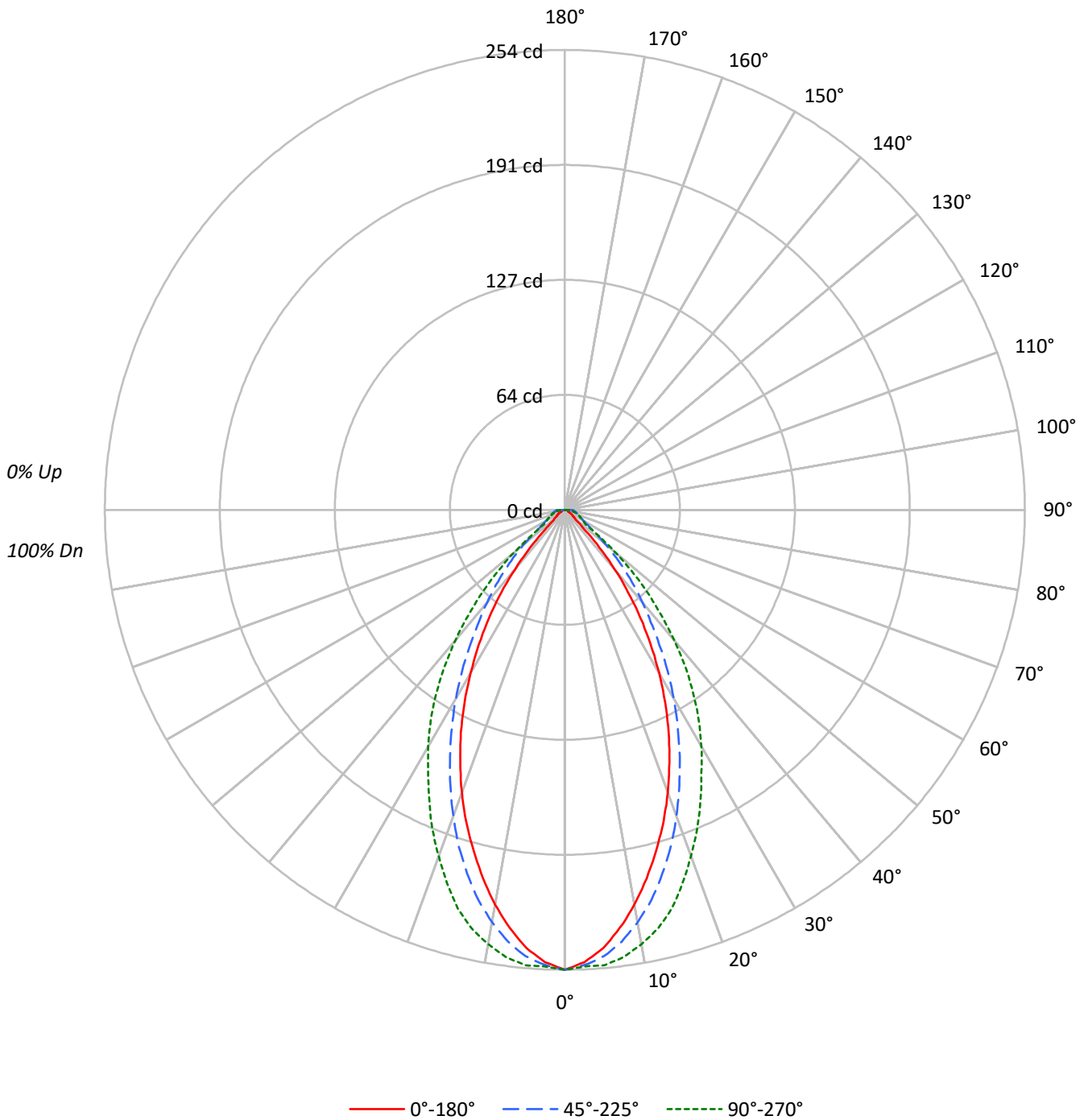
Lumens per Lamp: N/A
Luminaire Lumens: 276.5 lumens
Efficiency: N/A
Efficacy: 23.6 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058349

CATALOG NUMBER: S122RDR-H290D950-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	76	81	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	67	64	71	66	63	61					61															
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56					56															
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52					52															
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48					48															
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45					45															
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42					42															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4687	4687	4687
5°	4501	4584	4675
10°	4150	4334	4562
15°	3719	3975	4356
20°	3264	3537	3998
25°	2763	3054	3608
30°	2216	2563	3213
35°	1640	2050	2784
40°	1029	1607	2262
45°	402	1208	1675
50°	198	818	1028
55°	158	537	457
60°	122	435	421
65°	87	406	406
70°	108	415	415
75°	114	463	435
80°	170	606	478
85°	339	1037	699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 1904 cd/sqm



TEST NUMBER: P1058349

CATALOG NUMBER: S122RDR-H290D950-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.2	8.4
10°-20°	58.7	21.2
20°-30°	70.2	25.4
30°-40°	59.1	21.4
40°-50°	33.6	12.2
50°-60°	13.3	4.8
60°-70°	8.3	3.0
70°-80°	6.2	2.2
80°-90°	4.0	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°	152.0	55.0
0°-40°	211.1	76.3
0°-60°	258.0	93.3
0°-90°	276.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	276.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	254	254	254	254	254	
5°	243	248	248	250	252	23
15°	195	202	208	220	228	54
25°	136	142	150	165	177	62
35°	73	79	91	111	124	45
45°	15	27	46	58	64	15
55°	5	11	17	17	14	4
65°	2	9	9	9	9	2
75°	2	6	6	6	6	2
85°	2	4	5	4	3	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	254.0	254.0	254.0	254.0	254.0
2.5°	250.0	254.4	251.6	252.0	252.4
5°	243.0	248.3	247.5	250.4	252.4
7.5°	232.9	238.6	240.6	245.5	249.1
10°	221.5	228.0	231.3	239.0	243.5
12.5°	208.5	215.8	220.7	230.4	237.0
15°	194.7	201.6	208.1	220.3	228.0
17.5°	180.9	187.8	194.7	208.1	216.2
20°	166.2	172.7	180.1	194.3	203.6
22.5°	150.8	157.7	165.0	179.6	191.0
25°	135.7	141.8	150.0	165.4	177.2
27.5°	119.9	126.0	134.9	150.8	163.4
30°	104.0	110.1	120.3	136.6	150.8
32.5°	88.2	94.7	105.7	123.6	137.8
35°	72.8	79.3	91.0	110.6	123.6
37.5°	57.7	65.0	78.0	97.1	109.3
40°	42.7	51.2	66.7	83.7	93.9
42.5°	28.5	39.0	56.1	70.3	78.8
45°	15.4	27.2	46.3	58.1	64.2
47.5°	8.5	17.5	37.0	46.3	50.0
50°	6.9	12.2	28.5	35.4	35.8
52.5°	5.7	11.0	21.1	25.2	23.2
55°	4.9	10.6	16.7	17.1	14.2
57.5°	4.1	10.2	13.8	12.2	12.2
60°	3.3	10.2	11.8	11.0	11.4
62.5°	2.4	10.2	10.6	9.8	10.2
65°	2.0	9.3	9.3	8.9	9.3
67.5°	2.0	8.5	8.5	8.1	8.5
70°	2.0	8.1	7.7	7.7	7.7
72.5°	1.6	7.3	7.3	6.9	6.9
75°	1.6	6.5	6.5	6.1	6.1
77.5°	1.6	6.1	6.1	5.7	5.3
80°	1.6	5.3	5.7	5.3	4.5
82.5°	1.6	4.9	5.3	4.9	3.7
85°	1.6	4.5	4.9	4.5	3.3
87.5°	1.2	4.5	4.5	3.7	2.4
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	3.09	4.31	3.45	4.62	4.94	5.09	6.31	5.45	6.62	6.94
	3H	4.60	5.69	4.98	6.02	6.39	7.05	8.13	7.43	8.46	8.83
	4H	5.15	6.16	5.56	6.52	6.90	7.96	8.98	8.37	9.33	9.71
	6H	5.70	6.63	6.12	7.00	7.40	8.86	9.79	9.27	10.16	10.55
	8H	5.99	6.87	6.42	7.26	7.67	9.27	10.15	9.70	10.54	10.94
	12H	6.35	7.19	6.78	7.57	8.00	9.72	10.56	10.15	10.94	11.37
4H	2H	4.25	5.27	4.66	5.62	6.00	5.70	6.71	6.10	7.06	7.45
	3H	6.44	7.27	6.85	7.67	8.08	7.94	8.77	8.35	9.17	9.58
	4H	7.49	8.24	7.92	8.66	9.10	9.01	9.76	9.45	10.18	10.62
	6H	8.38	9.03	8.85	9.48	9.95	10.13	10.78	10.60	11.23	11.69
	8H	8.77	9.37	9.24	9.82	10.29	10.66	11.27	11.13	11.72	12.19
	12H	9.19	9.72	9.67	10.20	10.68	11.25	11.78	11.74	12.27	12.74
8H	4H	8.29	8.90	8.76	9.35	9.82	9.50	10.11	9.97	10.56	11.03
	6H	9.68	10.17	10.18	10.67	11.15	10.91	11.41	11.42	11.91	12.39
	8H	10.40	10.85	10.92	11.36	11.86	11.66	12.11	12.18	12.62	13.12
	12H	11.15	11.55	11.67	12.04	12.61	12.50	12.90	13.02	13.39	13.97
12H	4H	8.46	8.99	8.94	9.47	9.95	9.61	10.14	10.09	10.62	11.10
	6H	10.01	10.46	10.54	10.97	11.47	11.13	11.58	11.65	12.09	12.59
	8H	10.93	11.33	11.45	11.82	12.39	12.02	12.42	12.54	12.91	13.49