

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: P1058353

Luminaire Tested: S122RDR-H290D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058353
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

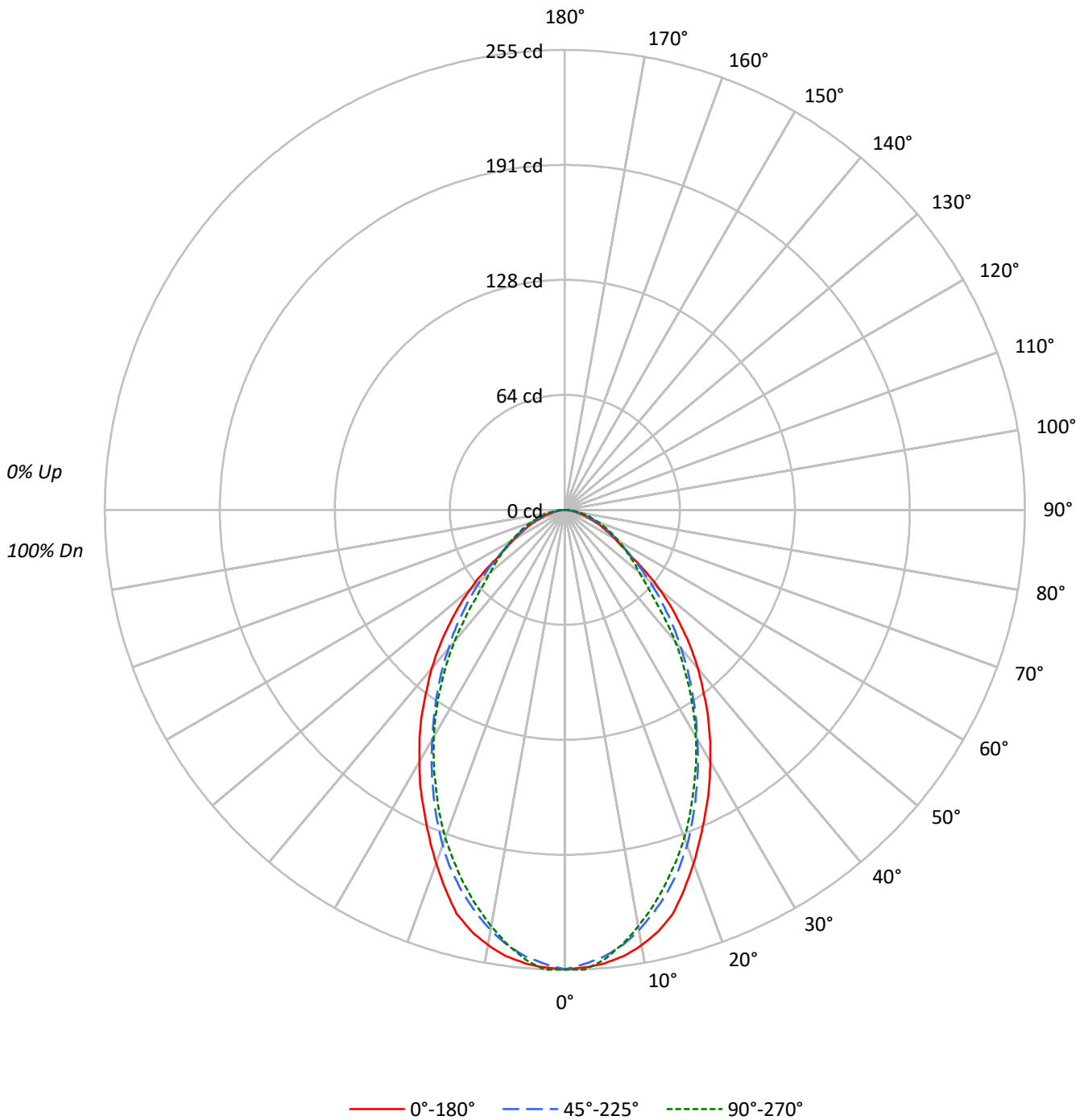
Lumens per Lamp: N/A
Luminaire Lumens: 387.0 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058353

CATALOG NUMBER: S122RDR-H290D950-X4F0-XX-UDD-WVL-B

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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4702	4702	4702
5°	4675	4607	4638
10°	4592	4433	4394
15°	4426	4193	4109
20°	4096	3888	3802
25°	3758	3512	3445
30°	3433	3130	3096
35°	3109	2771	2705
40°	2765	2414	2288
45°	2383	2075	1832
50°	1969	1748	1539
55°	1422	1448	1383
60°	1185	1244	1258
65°	1009	1083	1153
70°	831	966	1052
75°	692	813	955
80°	521	648	861
85°	169	339	783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2383 cd/sqm



TEST NUMBER: P1058353

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	6.1
10°-20°	62.0	16.0
20°-30°	80.3	20.7
30°-40°	78.7	20.3
40°-50°	62.0	16.0
50°-60°	40.6	10.5
60°-70°	24.7	6.4
70°-80°	12.4	3.2
80°-90°	2.7	0.7
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°	165.9	42.9
0°-40°	244.6	63.2
0°-60°	347.3	89.7
0°-90°	387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	387.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	255	255	255	255	255	
5°	252	252	249	250	250	24
15°	232	228	220	217	215	65
25°	185	178	172	172	169	85
35°	138	130	123	122	120	86
45°	91	86	80	74	70	70
55°	44	47	45	43	43	42
65°	23	24	25	26	26	23
75°	10	10	11	13	13	10
85°	1	1	2	3	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	254.8	254.8	254.8	254.8	254.8
2.5°	254.0	254.4	252.0	254.4	255.2
5°	252.4	252.4	248.7	250.4	250.4
7.5°	249.6	249.1	243.5	243.5	243.1
10°	245.1	243.5	236.6	235.4	234.5
12.5°	239.4	236.6	228.5	226.4	225.2
15°	231.7	228.5	219.5	216.7	215.1
17.5°	220.3	217.1	209.4	206.1	204.5
20°	208.6	203.7	198.0	195.2	193.6
22.5°	196.4	190.7	185.4	183.4	181.8
25°	184.6	178.5	172.5	171.6	169.2
27.5°	173.3	166.0	159.9	159.5	157.4
30°	161.1	153.4	146.9	147.3	145.3
32.5°	149.7	142.4	134.7	135.1	132.7
35°	138.0	130.3	123.0	122.5	120.1
37.5°	125.8	118.5	111.6	110.0	107.5
40°	114.8	107.5	100.2	97.4	95.0
42.5°	103.1	96.6	90.1	85.6	82.4
45°	91.3	85.6	79.5	73.9	70.2
47.5°	79.9	75.5	70.2	63.3	60.9
50°	68.6	65.3	60.9	54.8	53.6
52.5°	56.8	55.6	52.8	48.7	48.3
55°	44.2	46.7	45.0	43.4	43.0
57.5°	37.3	37.7	39.0	38.5	38.5
60°	32.1	32.1	33.7	34.1	34.1
62.5°	27.2	27.6	29.2	30.0	30.0
65°	23.1	23.5	24.8	26.0	26.4
67.5°	19.1	19.9	21.1	22.3	22.7
70°	15.4	16.2	17.9	19.1	19.5
72.5°	12.6	13.0	14.6	15.8	16.2
75°	9.7	10.1	11.4	13.0	13.4
77.5°	6.9	7.7	8.9	10.1	11.0
80°	4.9	5.3	6.1	7.7	8.1
82.5°	2.8	3.2	4.1	5.3	5.7
85°	0.8	1.2	1.6	2.8	3.7
87.5°	0.0	0.0	0.0	0.8	1.6
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	11.50	12.89	11.86	13.20	13.52	11.67	13.07	12.04	13.38	13.70
	3H	12.63	13.87	13.01	14.20	14.57	13.13	14.38	13.51	14.71	15.07
	4H	12.98	14.14	13.38	14.49	14.87	13.68	14.84	14.08	15.19	15.57
	6H	13.17	14.24	13.58	14.61	15.00	14.09	15.16	14.51	15.53	15.92
	8H	13.19	14.21	13.62	14.60	15.00	14.22	15.24	14.65	15.63	16.03
	12H	13.18	14.15	13.61	14.53	14.96	14.30	15.28	14.74	15.66	16.09
4H	2H	11.96	13.12	12.36	13.47	13.85	12.10	13.27	12.50	13.62	14.00
	3H	13.30	14.25	13.71	14.66	15.06	13.78	14.73	14.19	15.14	15.54
	4H	13.74	14.60	14.17	15.01	15.46	14.44	15.30	14.88	15.72	16.16
	6H	14.01	14.75	14.47	15.20	15.66	14.98	15.72	15.44	16.16	16.63
	8H	14.05	14.75	14.52	15.19	15.66	15.15	15.84	15.61	16.29	16.76
	12H	14.05	14.66	14.53	15.15	15.62	15.27	15.88	15.75	16.37	16.84
8H	4H	13.95	14.65	14.42	15.09	15.56	14.59	15.28	15.06	15.73	16.20
	6H	14.30	14.87	14.80	15.36	15.84	15.22	15.79	15.72	16.29	16.77
	8H	14.38	14.89	14.90	15.40	15.89	15.46	15.97	15.98	16.48	16.97
	12H	14.39	14.84	14.91	15.34	15.91	15.64	16.09	16.16	16.59	17.16
12H	4H	13.96	14.58	14.45	15.06	15.53	14.58	15.19	15.06	15.67	16.15
	6H	14.33	14.84	14.84	15.35	15.84	15.22	15.73	15.74	16.24	16.73
	8H	14.44	14.89	14.95	15.38	15.95	15.49	15.94	16.01	16.44	17.01