

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: P1058343

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058343
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
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-W
Description: DEFINE 2 WHITE 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

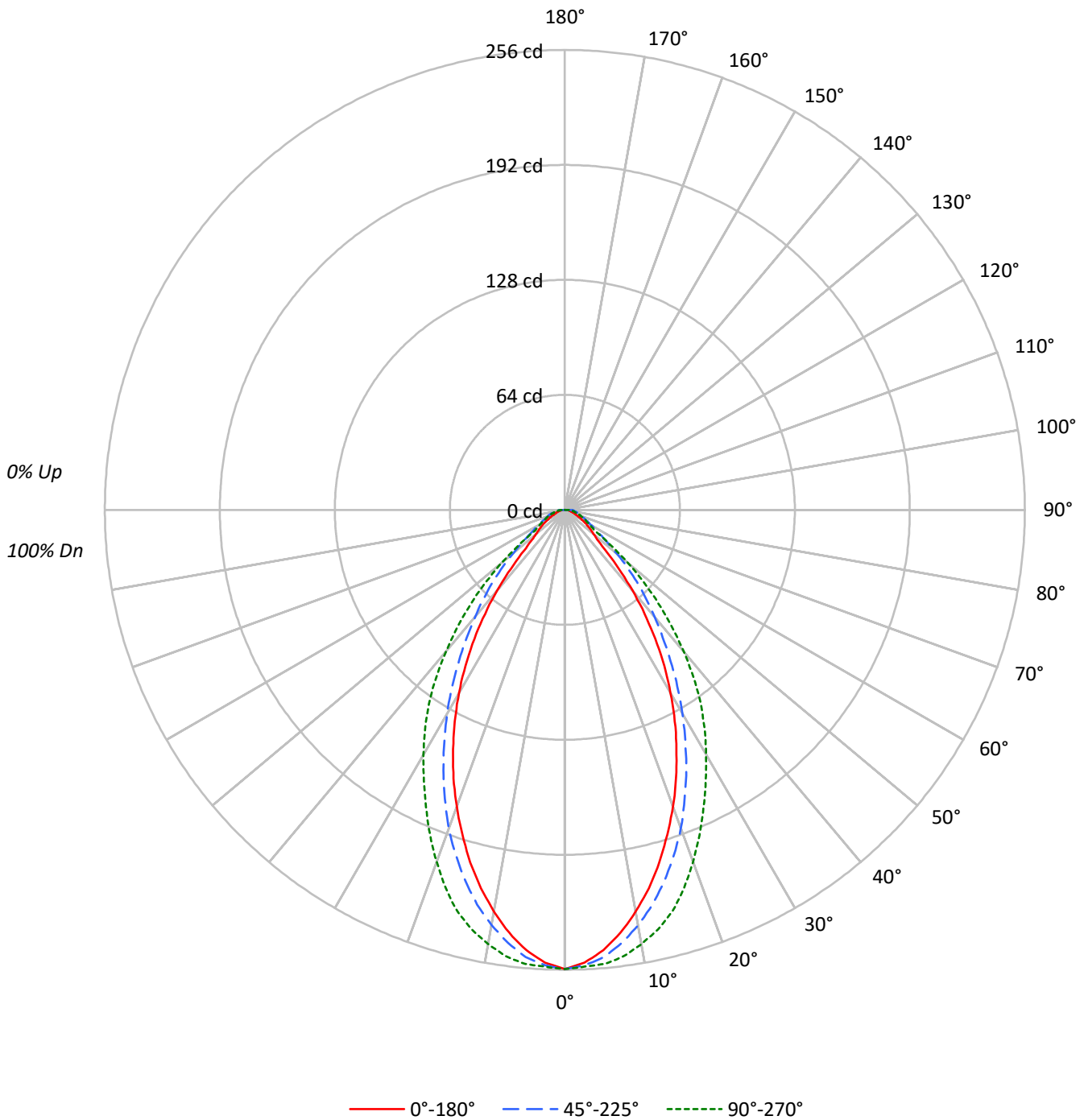
Lumens per Lamp: N/A
Luminaire Lumens: 310.0 lumens
Efficiency: N/A
Efficacy: 26.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4716	4716	4716
5°	4558	4629	4699
10°	4255	4398	4598
15°	3882	4084	4419
20°	3454	3707	4094
25°	2993	3256	3720
30°	2508	2791	3349
35°	1976	2311	2969
40°	1409	1867	2479
45°	832	1477	1923
50°	600	1068	1309
55°	502	769	660
60°	406	616	561
65°	332	546	515
70°	286	534	491
75°	271	542	485
80°	287	648	521
85°	402	1037	635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	7.6
10°-20°	60.2	19.4
20°-30°	74.3	24.0
30°-40°	66.1	21.3
40°-50°	42.2	13.6
50°-60°	20.3	6.5
60°-70°	11.9	3.8
70°-80°	7.6	2.4
80°-90°	4.0	1.3
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°	158.0	51.0
0°-40°	224.1	72.3
0°-60°	286.5	92.4
0°-90°	310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	256	256	256	256	256	
5°	246	251	250	251	254	23
15°	203	208	214	224	231	57
25°	147	153	160	171	183	67
35°	88	95	103	118	132	54
45°	32	41	57	66	74	27
55°	16	20	24	23	20	14
65°	8	14	12	11	12	8
75°	4	8	8	7	7	4
85°	2	5	5	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	255.6	255.6	255.6	255.6	255.6
2.5°	252.2	256.4	253.7	253.7	254.5
5°	246.1	250.7	249.9	251.4	253.7
7.5°	237.4	242.3	243.1	247.3	250.7
10°	227.1	232.4	234.7	240.8	245.4
12.5°	215.7	221.1	225.2	232.8	239.3
15°	203.2	208.1	213.8	223.7	231.3
17.5°	189.5	196.0	201.7	211.9	220.7
20°	175.9	181.9	188.8	198.6	208.5
22.5°	161.8	167.5	174.3	184.6	196.0
25°	147.0	152.7	159.9	171.3	182.7
27.5°	132.6	138.3	145.1	157.6	169.8
30°	117.7	123.4	131.0	143.9	157.2
32.5°	102.9	109.0	116.6	130.7	144.7
35°	87.7	94.6	102.6	118.1	131.8
37.5°	72.9	79.8	89.6	104.8	117.7
40°	58.5	66.5	77.5	91.2	102.9
42.5°	44.4	53.2	66.8	77.9	88.1
45°	31.9	41.4	56.6	65.7	73.7
47.5°	24.3	31.1	46.7	53.9	59.6
50°	20.9	25.1	37.2	42.5	45.6
52.5°	18.2	22.0	29.6	32.3	32.3
55°	15.6	20.1	23.9	23.2	20.5
57.5°	13.3	18.2	19.8	16.7	17.5
60°	11.0	16.7	16.7	14.8	15.2
62.5°	9.1	15.6	14.4	12.9	13.3
65°	7.6	13.7	12.5	11.4	11.8
67.5°	6.1	12.2	11.0	10.3	10.3
70°	5.3	11.0	9.9	9.1	9.1
72.5°	4.6	9.5	8.7	8.0	8.0
75°	3.8	8.4	7.6	7.2	6.8
77.5°	3.4	7.2	6.8	6.1	5.7
80°	2.7	6.1	6.1	5.7	4.9
82.5°	2.3	5.3	5.3	4.9	4.2
85°	1.9	4.6	4.9	4.2	3.0
87.5°	1.5	4.2	4.2	3.4	2.3
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	7.05	8.33	7.42	8.64	8.96	6.85	8.13	7.21	8.44	8.75
	3H	8.29	9.42	8.67	9.75	10.12	8.45	9.58	8.83	9.91	10.28
	4H	8.75	9.80	9.15	10.16	10.54	9.16	10.22	9.56	10.57	10.95
	6H	9.13	10.10	9.54	10.47	10.87	9.81	10.78	10.23	11.16	11.55
	8H	9.28	10.21	9.71	10.60	11.00	10.14	11.06	10.57	11.45	11.86
	12H	9.44	10.33	9.88	10.71	11.14	10.44	11.32	10.87	11.70	12.13
4H	2H	7.60	8.66	8.00	9.01	9.39	7.44	8.50	7.84	8.85	9.23
	3H	9.30	10.17	9.71	10.58	10.98	9.28	10.15	9.69	10.56	10.96
	4H	10.10	10.88	10.54	11.30	11.75	10.15	10.93	10.59	11.35	11.80
	6H	10.75	11.42	11.21	11.87	12.34	11.00	11.67	11.46	12.12	12.59
	8H	11.00	11.63	11.47	12.08	12.55	11.42	12.05	11.89	12.50	12.97
	12H	11.25	11.81	11.73	12.29	12.76	11.82	12.38	12.31	12.86	13.34
8H	4H	10.52	11.15	10.99	11.60	12.07	10.57	11.20	11.04	11.65	12.12
	6H	11.50	12.02	12.00	12.51	13.00	11.65	12.17	12.16	12.67	13.15
	8H	11.99	12.46	12.51	12.97	13.47	12.24	12.71	12.77	13.23	13.72
	12H	12.50	12.91	13.01	13.40	13.98	12.84	13.26	13.36	13.75	14.32
12H	4H	10.59	11.15	11.07	11.63	12.10	10.64	11.20	11.13	11.69	12.16
	6H	11.67	12.13	12.19	12.65	13.14	11.82	12.29	12.34	12.80	13.29
	8H	12.30	12.72	12.82	13.21	13.78	12.53	12.94	13.04	13.44	14.01