

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: P1058354

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058354
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-H290D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

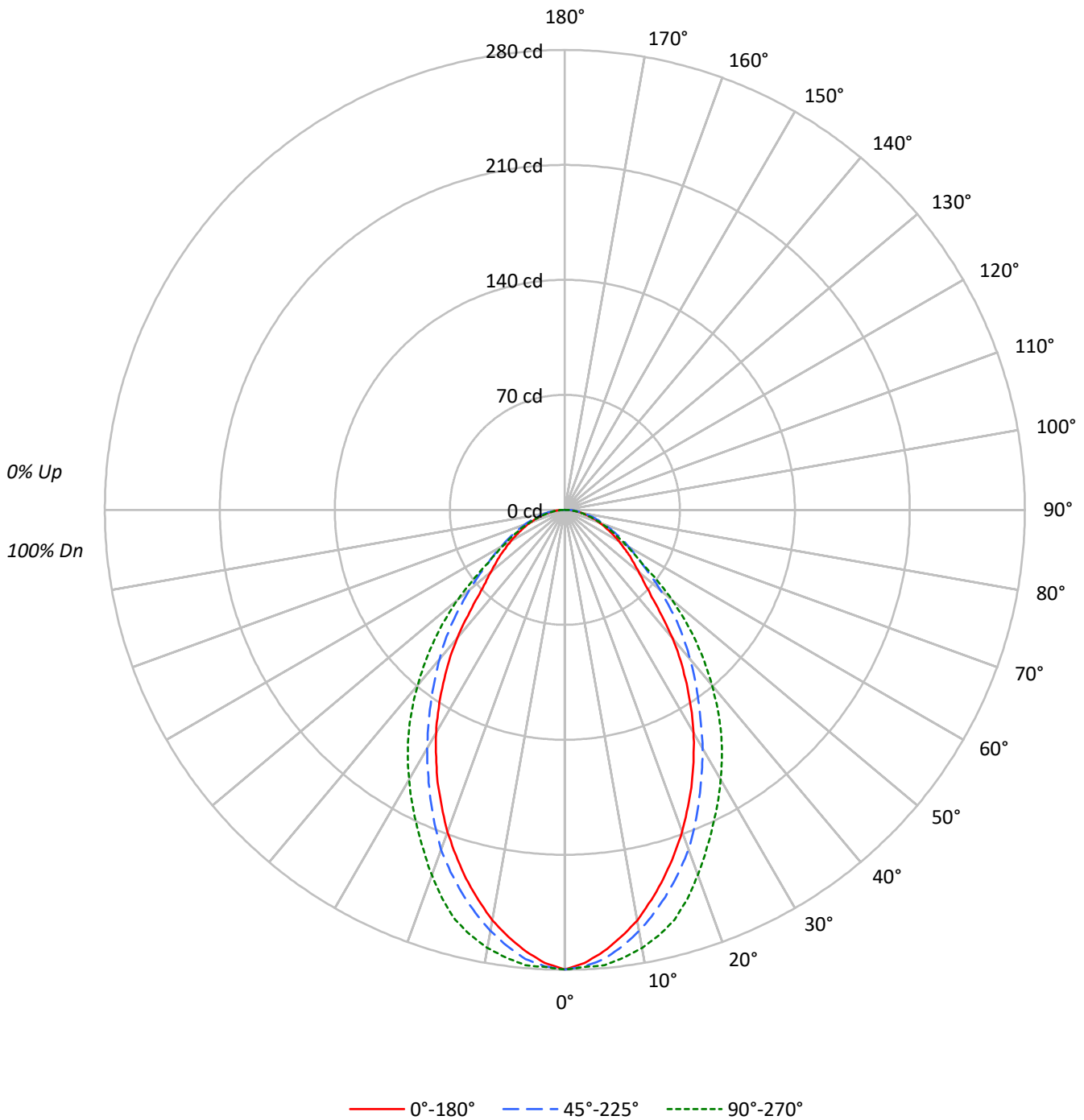
Lumens per Lamp: N/A
Luminaire Lumens: 455.6 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	5163	5163	5163
5°	5001	5085	5153
10°	4755	4877	5074
15°	4438	4615	4934
20°	4098	4322	4648
25°	3728	3944	4333
30°	3339	3573	4040
35°	2908	3192	3733
40°	2455	2857	3355
45°	1949	2521	2936
50°	1679	2167	2437
55°	1528	1856	1869
60°	1395	1650	1587
65°	1275	1489	1402
70°	1182	1381	1246
75°	1098	1305	1098
80°	1031	1254	988
85°	1037	1291	868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2936 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.8	5.7
10°-20°	68.3	15.0
20°-30°	89.8	19.7
30°-40°	90.3	19.8
40°-50°	73.2	16.1
50°-60°	50.4	11.1
60°-70°	33.0	7.2
70°-80°	18.4	4.0
80°-90°	6.2	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°	184.0	40.4
0°-40°	274.3	60.2
0°-60°	398.0	87.3
0°-90°	455.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	455.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	280	280	280	280	280	
5°	270	275	274	276	278	25
15°	232	238	242	250	258	65
25°	183	188	194	202	213	84
35°	129	135	142	154	166	81
45°	75	83	97	105	112	59
55°	48	53	58	59	58	43
65°	29	35	34	32	32	29
75°	15	19	18	16	15	16
85°	5	6	6	5	4	5
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	279.8	279.8	279.8	279.8	279.8
2.5°	276.1	281.0	278.2	278.2	278.6
5°	270.0	275.3	274.5	275.7	278.2
7.5°	262.3	268.0	268.0	271.7	274.9
10°	253.8	259.5	260.3	266.0	270.8
12.5°	243.2	248.9	251.4	258.7	265.2
15°	232.3	238.0	241.6	250.5	258.3
17.5°	220.5	226.2	231.1	240.4	248.1
20°	208.7	214.0	220.1	228.2	236.7
22.5°	195.7	201.4	207.1	214.8	224.6
25°	183.1	188.0	193.7	202.2	212.8
27.5°	169.7	175.0	180.3	190.4	201.4
30°	156.7	162.0	167.7	178.3	189.6
32.5°	142.9	148.6	154.3	166.1	177.9
35°	129.1	135.2	141.7	154.3	165.7
37.5°	115.7	122.2	129.9	142.9	152.7
40°	101.9	108.8	118.6	129.9	139.3
42.5°	87.3	95.8	107.6	117.4	125.9
45°	74.7	83.2	96.6	105.2	112.5
47.5°	65.4	72.3	85.3	92.6	98.7
50°	58.5	63.8	75.5	80.8	84.9
52.5°	52.8	58.1	66.2	69.8	71.1
55°	47.5	52.8	57.7	58.9	58.1
57.5°	42.2	47.9	50.8	49.5	49.5
60°	37.8	43.9	44.7	43.0	43.0
62.5°	33.3	39.4	39.4	37.4	37.4
65°	29.2	34.9	34.1	32.5	32.1
67.5°	25.6	30.9	29.6	28.0	27.6
70°	21.9	26.8	25.6	23.6	23.1
72.5°	18.7	23.1	21.5	19.9	19.1
75°	15.4	19.1	18.3	16.2	15.4
77.5°	12.6	15.4	14.6	13.0	12.2
80°	9.7	12.2	11.8	10.2	9.3
82.5°	7.3	9.3	8.9	7.7	6.5
85°	4.9	6.5	6.1	5.3	4.1
87.5°	2.4	4.5	4.1	3.7	2.0
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	12.43	13.87	12.80	14.18	14.50	12.79	14.23	13.15	14.54	14.85
	3H	13.98	15.27	14.35	15.59	15.96	14.13	15.42	14.51	15.75	16.11
	4H	14.55	15.75	14.95	16.10	16.48	14.62	15.82	15.02	16.17	16.55
	6H	14.98	16.09	15.39	16.46	16.85	14.97	16.09	15.38	16.45	16.85
	8H	15.13	16.19	15.56	16.58	16.98	15.09	16.15	15.51	16.54	16.94
	12H	15.25	16.26	15.68	16.64	17.07	15.16	16.18	15.59	16.56	16.99
4H	2H	13.02	14.22	13.42	14.57	14.95	13.30	14.51	13.70	14.86	15.24
	3H	14.84	15.84	15.25	16.24	16.64	14.88	15.88	15.29	16.28	16.68
	4H	15.59	16.49	16.02	16.90	17.34	15.48	16.38	15.91	16.80	17.24
	6H	16.17	16.96	16.63	17.40	17.86	15.96	16.75	16.42	17.19	17.65
	8H	16.38	17.11	16.85	17.56	18.03	16.13	16.86	16.59	17.30	17.77
	12H	16.55	17.20	17.03	17.68	18.15	16.25	16.90	16.73	17.38	17.85
8H	4H	15.87	16.60	16.34	17.05	17.52	15.78	16.51	16.25	16.96	17.43
	6H	16.63	17.23	17.13	17.72	18.20	16.40	17.00	16.90	17.50	17.98
	8H	16.95	17.49	17.47	18.00	18.49	16.65	17.19	17.17	17.70	18.19
	12H	17.23	17.71	17.75	18.21	18.77	16.86	17.34	17.37	17.83	18.40
12H	4H	15.89	16.54	16.37	17.02	17.49	15.82	16.47	16.30	16.95	17.42
	6H	16.69	17.23	17.20	17.74	18.23	16.48	17.02	16.99	17.53	18.02
	8H	17.08	17.56	17.59	18.06	18.62	16.80	17.28	17.31	17.77	18.34