

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: P1058393

Luminaire Tested: S122RDR-H485D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058393
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D927-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

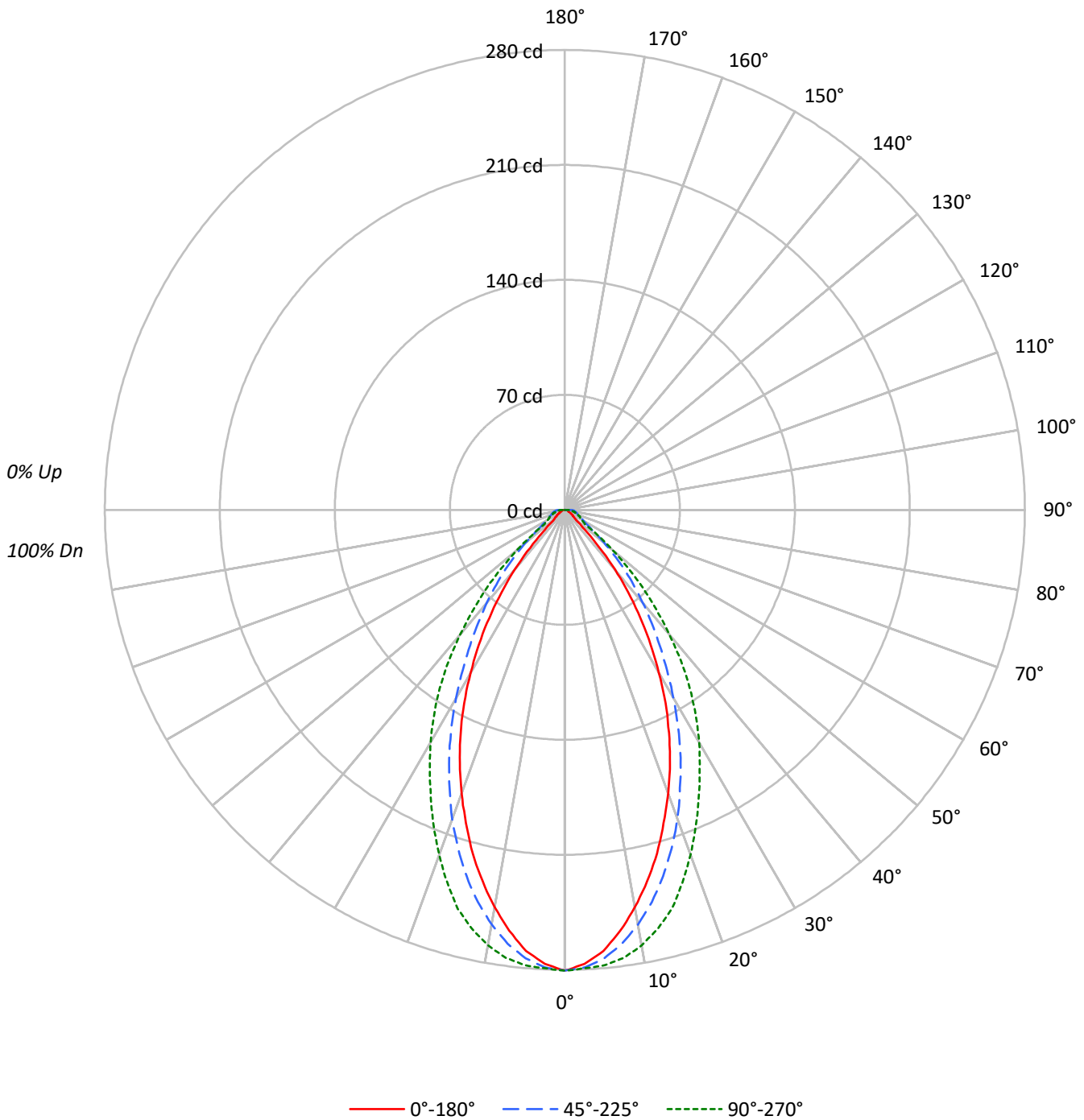
Lumens per Lamp: N/A
Luminaire Lumens: 302.3 lumens
Efficiency: N/A
Efficacy: 17.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97		98	96	95		95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87		91	87	85		88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78		84	80	77		82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70		78	73	70		76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64		72	68	64		71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59		68	63	59		66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54		63	58	54		62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50		59	54	50		58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47		56	51	47		55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44		53	47	44		52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5176	5176	5176
5°	4996	5075	5155
10°	4602	4802	5044
15°	4138	4415	4805
20°	3609	3935	4389
25°	3052	3392	3927
30°	2440	2817	3482
35°	1804	2264	2989
40°	1139	1773	2382
45°	449	1331	1754
50°	233	896	1079
55°	190	589	483
60°	140	476	435
65°	118	445	445
70°	113	464	437
75°	150	535	456
80°	223	680	510
85°	339	1143	677

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2284 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.7	8.5
10°-20°	64.8	21.4
20°-30°	77.0	25.5
30°-40°	64.1	21.2
40°-50°	35.8	11.8
50°-60°	14.5	4.8
60°-70°	9.2	3.1
70°-80°	6.9	2.3
80°-90°	4.4	1.5
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°	167.5	55.4
0°-40°	231.5	76.6
0°-60°	281.8	93.2
0°-90°	302.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	302.3	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°	217	223	231	243	252	60
25°	150	156	167	180	193	68
35°	80	88	100	117	133	50
45°	17	29	51	60	67	16
55°	6	12	18	18	15	5
65°	3	11	10	10	10	3
75°	2	8	8	7	6	2
85°	2	5	5	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	280.5	280.5	280.5	280.5	280.5
2.5°	276.7	281.0	278.9	278.9	279.4
5°	269.7	274.6	274.0	276.2	278.3
7.5°	258.5	263.8	266.5	271.4	275.1
10°	245.6	251.5	256.3	263.8	269.2
12.5°	231.6	237.5	244.5	254.2	261.2
15°	216.6	223.0	231.1	242.9	251.5
17.5°	199.9	206.9	216.0	228.9	238.0
20°	183.8	190.8	200.4	213.3	223.5
22.5°	167.1	173.0	183.2	196.1	208.5
25°	149.9	155.8	166.6	179.5	192.9
27.5°	132.7	138.6	149.4	162.8	177.9
30°	114.5	120.9	132.2	147.2	163.4
32.5°	97.3	103.7	115.5	132.2	148.3
35°	80.1	87.6	100.5	117.1	132.7
37.5°	63.4	72.0	86.5	102.1	116.1
40°	47.3	56.4	73.6	87.1	98.9
42.5°	31.2	41.9	61.8	73.1	82.2
45°	17.2	29.0	51.0	59.6	67.2
47.5°	9.7	18.8	40.3	47.3	51.6
50°	8.1	14.0	31.2	36.0	37.6
52.5°	6.4	12.9	23.6	26.3	25.3
55°	5.9	12.4	18.3	17.7	15.0
57.5°	4.8	12.4	14.5	12.9	12.9
60°	3.8	11.8	12.9	11.3	11.8
62.5°	3.2	11.3	11.8	10.7	10.7
65°	2.7	10.7	10.2	9.7	10.2
67.5°	2.1	9.7	9.7	9.1	9.1
70°	2.1	9.1	8.6	8.1	8.1
72.5°	2.1	8.1	8.1	7.5	7.5
75°	2.1	7.5	7.5	7.0	6.4
77.5°	2.1	6.4	7.0	6.4	5.9
80°	2.1	5.9	6.4	5.9	4.8
82.5°	2.1	5.4	5.9	5.4	4.3
85°	1.6	4.8	5.4	4.8	3.2
87.5°	1.6	4.8	5.4	4.3	2.7
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	4.09	5.31	4.46	5.62	5.94	5.15	6.37	5.52	6.69	7.00
	3H	5.41	6.49	5.79	6.83	7.19	7.18	8.27	7.56	8.60	8.96
	4H	5.97	6.98	6.38	7.34	7.72	8.13	9.14	8.54	9.49	9.88
	6H	6.53	7.45	6.94	7.83	8.22	9.07	10.00	9.49	10.37	10.77
	8H	6.84	7.72	7.28	8.11	8.52	9.52	10.40	9.95	10.79	11.20
	12H	7.15	7.99	7.58	8.37	8.80	9.94	10.78	10.38	11.17	11.60
4H	2H	5.05	6.06	5.45	6.41	6.80	5.83	6.84	6.23	7.19	7.58
	3H	7.07	7.90	7.48	8.31	8.71	8.11	8.95	8.53	9.35	9.76
	4H	8.14	8.89	8.58	9.31	9.75	9.26	10.01	9.69	10.43	10.87
	6H	9.00	9.65	9.46	10.09	10.56	10.42	11.07	10.88	11.51	11.98
	8H	9.41	10.01	9.88	10.46	10.93	10.98	11.59	11.45	12.04	12.51
	12H	9.78	10.32	10.27	10.80	11.28	11.53	12.06	12.01	12.54	13.02
8H	4H	8.91	9.52	9.38	9.96	10.44	9.81	10.41	10.28	10.86	11.33
	6H	10.24	10.74	10.74	11.23	11.72	11.26	11.75	11.76	12.25	12.73
	8H	10.96	11.40	11.48	11.92	12.41	12.02	12.47	12.55	12.99	13.48
	12H	11.65	12.04	12.16	12.54	13.11	12.81	13.20	13.32	13.69	14.27
12H	4H	9.07	9.60	9.55	10.08	10.56	9.91	10.45	10.40	10.93	11.41
	6H	10.56	11.01	11.09	11.52	12.02	11.48	11.93	12.00	12.44	12.94
	8H	11.47	11.86	11.98	12.36	12.93	12.39	12.79	12.91	13.28	13.85