

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: P1058319

Luminaire Tested: S122RDR-H290D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058319
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D927-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

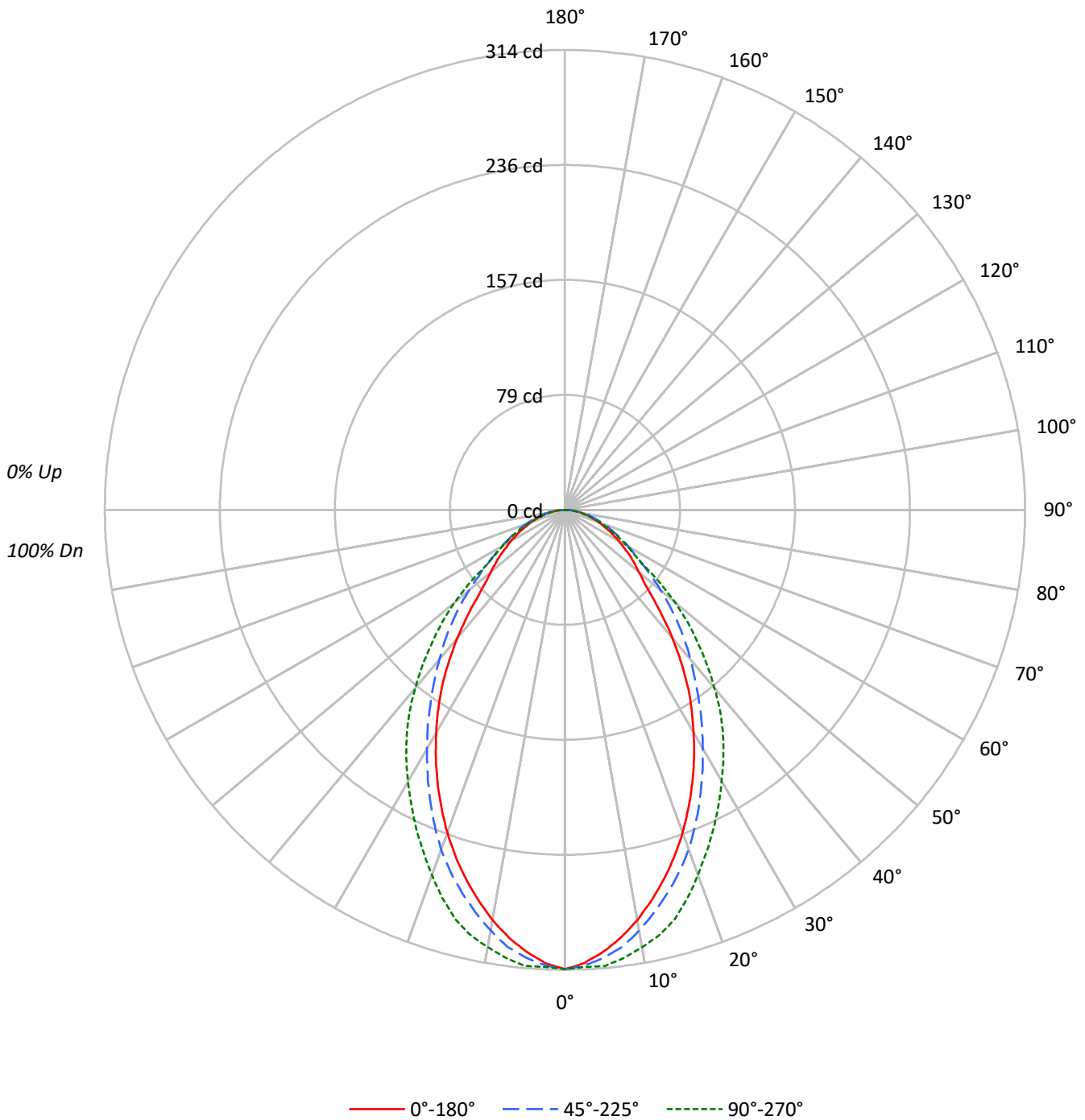
Lumens per Lamp: N/A
Luminaire Lumens: 511.3 lumens
Efficiency: N/A
Efficacy: 43.7 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5787	5787	5787
5°	5609	5685	5790
10°	5327	5466	5681
15°	4986	5173	5527
20°	4609	4846	5212
25°	4188	4434	4888
30°	3744	4010	4562
35°	3282	3593	4239
40°	2746	3209	3825
45°	2200	2842	3343
50°	1889	2449	2808
55°	1724	2081	2072
60°	1568	1842	1805
65°	1428	1650	1576
70°	1311	1511	1403
75°	1226	1397	1226
80°	1148	1286	1073
85°	1143	1355	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3343 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	5.7
10°-20°	76.6	15.0
20°-30°	101.1	19.8
30°-40°	101.8	19.9
40°-50°	82.9	16.2
50°-60°	56.5	11.0
60°-70°	36.7	7.2
70°-80°	20.2	3.9
80°-90°	6.6	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°	206.7	40.4
0°-40°	308.5	60.3
0°-60°	447.8	87.6
0°-90°	511.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	314	314	314	314	314	
5°	303	308	307	310	313	28
15°	261	268	271	282	289	73
25°	206	212	218	228	240	94
35°	146	153	160	173	188	90
45°	84	95	109	118	128	66
55°	54	59	65	65	64	48
65°	33	39	38	36	36	33
75°	17	21	20	18	17	18
85°	5	7	6	5	4	6
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	313.6	313.6	313.6	313.6	313.6
2.5°	309.6	314.6	311.2	311.6	312.3
5°	302.8	308.5	306.9	309.6	312.6
7.5°	294.4	300.1	300.8	304.8	308.5
10°	284.3	290.7	291.7	297.8	303.2
12.5°	273.1	280.2	281.6	290.3	297.4
15°	261.0	267.7	270.8	281.9	289.3
17.5°	248.2	254.6	259.3	269.4	277.9
20°	234.7	240.8	246.8	255.9	265.4
22.5°	220.2	226.9	232.7	241.8	252.6
25°	205.7	212.4	217.8	227.6	240.1
27.5°	190.9	197.6	203.0	213.5	226.9
30°	175.7	182.8	188.2	200.0	214.1
32.5°	160.8	167.9	174.0	186.5	201.3
35°	145.7	153.1	159.5	173.3	188.2
37.5°	129.5	137.9	146.0	159.8	174.3
40°	114.0	123.4	133.2	146.0	158.8
42.5°	98.5	108.9	121.1	131.8	143.7
45°	84.3	94.8	108.9	118.4	128.1
47.5°	73.2	81.9	97.1	104.9	113.6
50°	65.8	71.8	85.3	91.4	97.8
52.5°	59.7	64.7	74.2	78.2	81.6
55°	53.6	59.0	64.7	65.1	64.4
57.5°	47.5	53.6	56.7	54.3	55.6
60°	42.5	48.6	49.9	47.5	48.9
62.5°	37.1	43.8	43.8	41.5	42.2
65°	32.7	38.8	37.8	35.7	36.1
67.5°	28.3	34.4	32.7	30.7	30.7
70°	24.3	30.0	28.0	26.0	26.0
72.5°	20.6	25.3	23.9	21.6	21.2
75°	17.2	21.2	19.6	17.5	17.2
77.5°	13.8	17.2	15.8	14.2	13.5
80°	10.8	13.8	12.1	10.8	10.1
82.5°	8.1	10.5	9.1	7.8	7.1
85°	5.4	7.1	6.4	5.1	4.4
87.5°	2.7	4.7	4.0	3.4	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	12.82	14.25	13.18	14.57	14.88	13.07	14.50	13.43	14.82	15.13
	3H	14.34	15.63	14.72	15.96	16.32	14.43	15.71	14.80	16.04	16.40
	4H	14.91	16.11	15.31	16.46	16.84	14.91	16.11	15.31	16.46	16.84
	6H	15.33	16.44	15.74	16.81	17.20	15.25	16.37	15.67	16.73	17.13
	8H	15.48	16.54	15.91	16.93	17.33	15.36	16.42	15.79	16.81	17.21
	12H	15.60	16.61	16.03	16.99	17.42	15.43	16.44	15.86	16.83	17.26
4H	2H	13.39	14.59	13.79	14.94	15.32	13.59	14.79	13.99	15.14	15.52
	3H	15.19	16.19	15.60	16.59	16.99	15.17	16.17	15.58	16.57	16.97
	4H	15.93	16.83	16.37	17.25	17.69	15.76	16.66	16.19	17.07	17.51
	6H	16.52	17.30	16.98	17.74	18.21	16.23	17.01	16.69	17.45	17.91
	8H	16.73	17.46	17.20	17.91	18.37	16.38	17.11	16.84	17.55	18.02
	12H	16.90	17.55	17.38	18.03	18.50	16.49	17.14	16.97	17.62	18.09
8H	4H	16.20	16.93	16.66	17.37	17.84	16.05	16.78	16.51	17.22	17.69
	6H	16.95	17.55	17.45	18.05	18.53	16.64	17.24	17.14	17.73	18.21
	8H	17.28	17.82	17.80	18.33	18.82	16.86	17.40	17.38	17.91	18.40
	12H	17.56	18.04	18.08	18.53	19.10	17.05	17.53	17.56	18.02	18.59
12H	4H	16.21	16.86	16.70	17.34	17.81	16.08	16.73	16.57	17.21	17.68
	6H	17.00	17.54	17.52	18.05	18.54	16.71	17.25	17.22	17.76	18.25
	8H	17.40	17.88	17.91	18.37	18.94	16.99	17.47	17.51	17.96	18.53