

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057939

Luminaire Tested: S122RDRP-S290D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057939
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: S122RDRP-S290D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

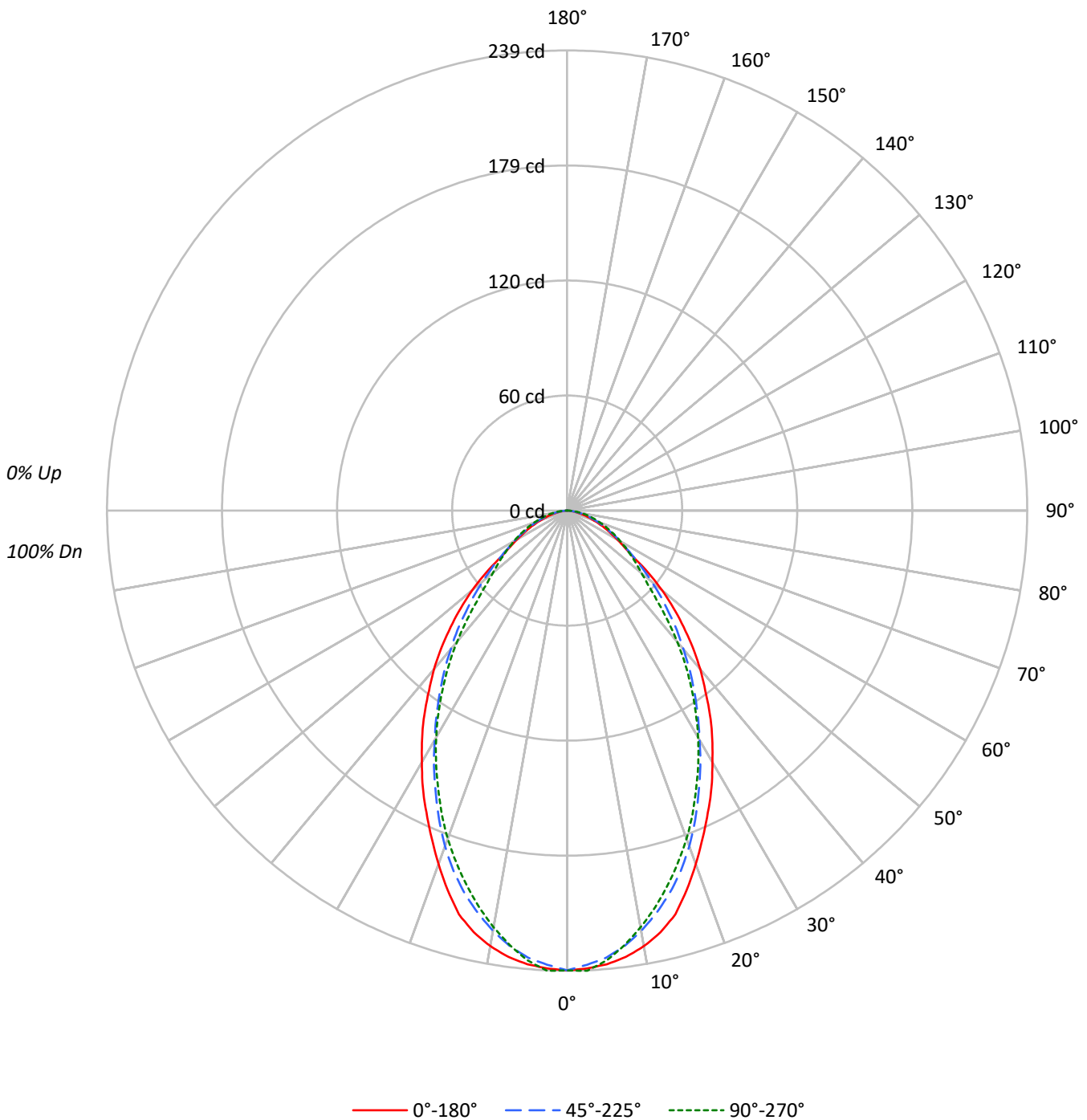
Lumens per Lamp: N/A
Luminaire Lumens: 362.6 lumens
Efficiency: N/A
Efficacy: 29.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4406	4406	4406
5°	4381	4318	4345
10°	4304	4154	4118
15°	4147	3930	3849
20°	3837	3643	3562
25°	3522	3290	3229
30°	3215	2932	2900
35°	2913	2595	2534
40°	2592	2262	2144
45°	2231	1944	1717
50°	1846	1636	1441
55°	1332	1358	1296
60°	1107	1166	1177
65°	947	1013	1078
70°	777	901	987
75°	649	756	891
80°	489	606	808
85°	169	318	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2231 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.1	6.1
10°-20°	58.1	16.0
20°-30°	75.2	20.7
30°-40°	73.8	20.3
40°-50°	58.1	16.0
50°-60°	38.1	10.5
60°-70°	23.2	6.4
70°-80°	11.6	3.2
80°-90°	2.5	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°	155.4	42.9
0°-40°	229.2	63.2
0°-60°	325.4	89.7
0°-90°	362.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	362.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	239	239	239	239	239	
5°	236	236	233	235	235	22
15°	217	214	206	203	202	60
25°	173	167	162	161	159	80
35°	129	122	115	115	112	81
45°	86	80	74	69	66	66
55°	41	44	42	41	40	39
65°	22	22	23	24	25	22
75°	9	10	11	12	12	10
85°	1	1	2	3	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	238.8	238.8	238.8	238.8	238.8
2.5°	238.0	238.4	236.1	238.4	239.2
5°	236.5	236.5	233.1	234.6	234.6
7.5°	233.8	233.5	228.1	228.1	227.7
10°	229.7	228.1	221.7	220.5	219.8
12.5°	224.3	221.7	214.1	212.2	211.0
15°	217.1	214.1	205.7	203.0	201.5
17.5°	206.5	203.4	196.2	193.2	191.6
20°	195.4	190.9	185.5	182.9	181.4
22.5°	184.0	178.7	173.8	171.9	170.3
25°	173.0	167.3	161.6	160.8	158.6
27.5°	162.4	155.5	149.8	149.4	147.5
30°	150.9	143.7	137.6	138.0	136.1
32.5°	140.3	133.5	126.2	126.6	124.3
35°	129.3	122.0	115.2	114.8	112.5
37.5°	117.9	111.0	104.6	103.0	100.8
40°	107.6	100.8	93.9	91.3	89.0
42.5°	96.6	90.5	84.4	80.2	77.2
45°	85.5	80.2	74.5	69.2	65.8
47.5°	74.9	70.7	65.8	59.3	57.0
50°	64.3	61.2	57.0	51.3	50.2
52.5°	53.2	52.1	49.4	45.6	45.2
55°	41.4	43.7	42.2	40.7	40.3
57.5°	35.0	35.4	36.5	36.1	36.1
60°	30.0	30.0	31.6	31.9	31.9
62.5°	25.5	25.9	27.4	28.1	28.1
65°	21.7	22.1	23.2	24.3	24.7
67.5°	17.9	18.6	19.8	20.9	21.3
70°	14.4	15.2	16.7	17.9	18.3
72.5°	11.8	12.2	13.7	14.8	15.2
75°	9.1	9.5	10.6	12.2	12.5
77.5°	6.5	7.2	8.4	9.5	10.3
80°	4.6	4.9	5.7	7.2	7.6
82.5°	2.7	3.0	3.8	4.9	5.3
85°	0.8	1.1	1.5	2.7	3.4
87.5°	0.0	0.0	0.0	0.8	1.5
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	11.28	12.68	11.65	12.99	13.31	11.45	12.85	11.81	13.16	13.47
	3H	12.41	13.65	12.79	13.98	14.35	12.91	14.16	13.29	14.49	14.85
	4H	12.76	13.92	13.16	14.27	14.66	13.45	14.62	13.86	14.97	15.35
	6H	12.95	14.02	13.36	14.39	14.78	13.87	14.94	14.28	15.31	15.70
	8H	12.97	13.99	13.40	14.38	14.79	13.99	15.01	14.42	15.40	15.81
	12H	12.96	13.93	13.39	14.32	14.75	14.08	15.05	14.51	15.43	15.86
4H	2H	11.74	12.90	12.14	13.25	13.63	11.88	13.04	12.28	13.39	13.77
	3H	13.08	14.03	13.49	14.44	14.84	13.55	14.51	13.96	14.91	15.32
	4H	13.52	14.38	13.95	14.79	15.24	14.22	15.08	14.65	15.49	15.94
	6H	13.79	14.53	14.25	14.98	15.44	14.75	15.50	15.21	15.94	16.40
	8H	13.83	14.53	14.30	14.97	15.44	14.92	15.61	15.39	16.06	16.53
	12H	13.83	14.45	14.31	14.93	15.40	15.04	15.65	15.52	16.14	16.61
8H	4H	13.73	14.43	14.20	14.87	15.34	14.37	15.06	14.83	15.51	15.98
	6H	14.08	14.65	14.58	15.14	15.62	15.00	15.57	15.50	16.06	16.54
	8H	14.15	14.67	14.67	15.18	15.67	15.23	15.74	15.75	16.25	16.74
	12H	14.17	14.62	14.68	15.12	15.68	15.41	15.86	15.93	16.36	16.93
12H	4H	13.74	14.36	14.23	14.84	15.31	14.35	14.97	14.84	15.45	15.92
	6H	14.10	14.61	14.62	15.13	15.62	14.99	15.50	15.51	16.02	16.51
	8H	14.22	14.67	14.73	15.16	15.73	15.26	15.71	15.78	16.21	16.78