

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: P1057935

Luminaire Tested: S122RDRP-S290D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057935
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D940-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

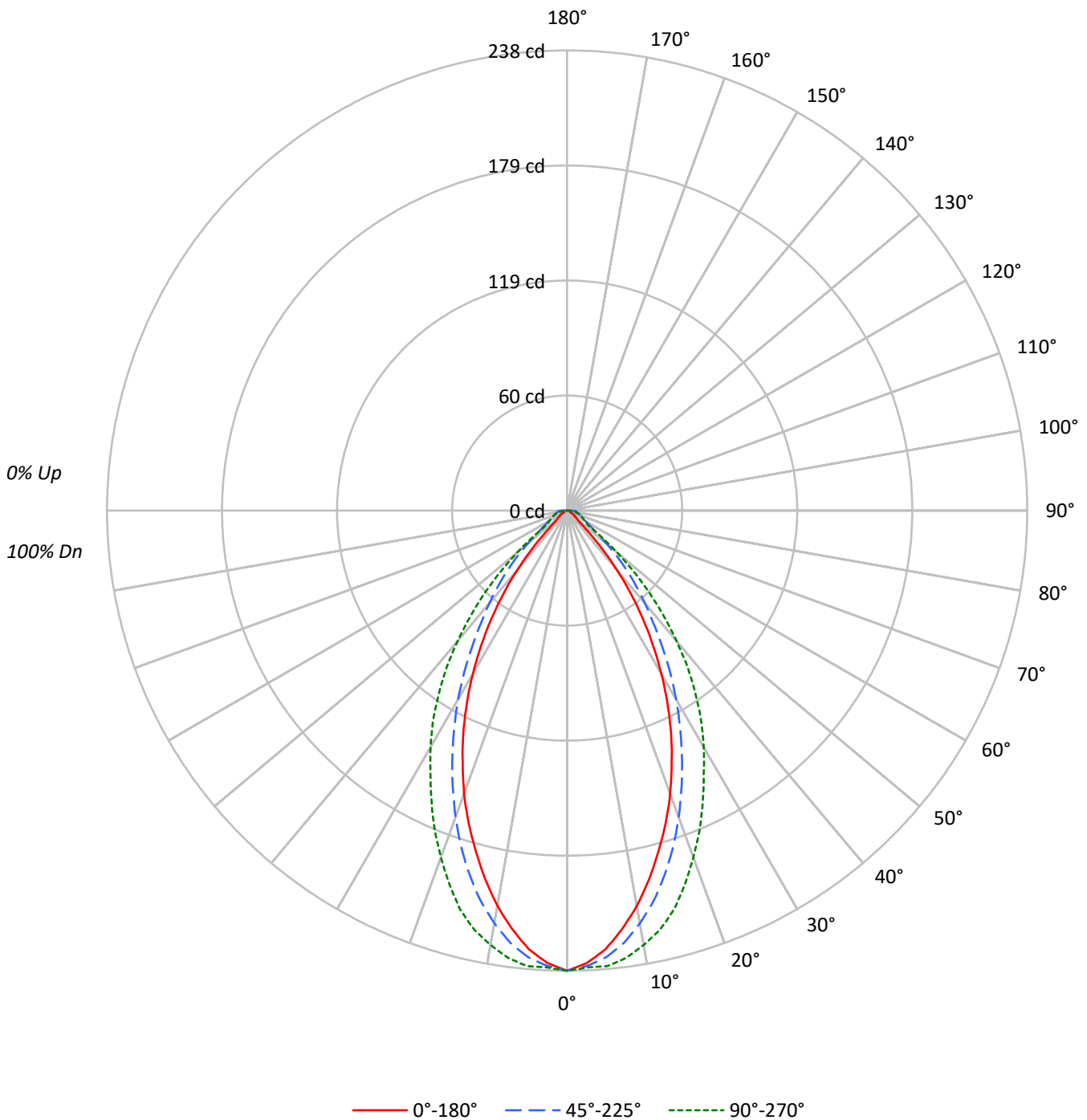
Lumens per Lamp: N/A
Luminaire Lumens: 259.1 lumens
Efficiency: N/A
Efficacy: 20.7 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	76	81	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	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4392	4392	4392
5°	4218	4295	4381
10°	3890	4060	4274
15°	3484	3725	4080
20°	3059	3313	3747
25°	2590	2861	3380
30°	2077	2401	3011
35°	1536	1921	2609
40°	964	1505	2120
45°	378	1133	1571
50°	187	766	962
55°	148	502	428
60°	111	406	395
65°	83	384	384
70°	103	388	388
75°	107	435	406
80°	159	563	446
85°	318	974	635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 1777 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	8.4
10°-20°	55.0	21.2
20°-30°	65.7	25.4
30°-40°	55.3	21.4
40°-50°	31.5	12.2
50°-60°	12.4	4.8
60°-70°	7.8	3.0
70°-80°	5.8	2.2
80°-90°	3.7	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°	142.4	55.0
0°-40°	197.8	76.3
0°-60°	241.7	93.3
0°-90°	259.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	259.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	238	238	238	238	238	
5°	228	233	232	235	236	21
15°	182	189	195	206	214	51
25°	127	133	140	155	166	58
35°	68	74	85	104	116	42
45°	14	26	43	54	60	14
55°	5	10	16	16	13	4
65°	2	9	9	8	9	2
75°	2	6	6	6	6	2
85°	2	4	5	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	238.0	238.0	238.0	238.0	238.0
2.5°	234.2	238.4	235.7	236.1	236.5
5°	227.7	232.7	231.9	234.6	236.5
7.5°	218.2	223.5	225.5	230.0	233.4
10°	207.6	213.6	216.7	223.9	228.1
12.5°	195.4	202.2	206.8	215.9	222.0
15°	182.4	188.9	195.0	206.4	213.6
17.5°	169.5	175.9	182.4	195.0	202.6
20°	155.8	161.9	168.7	182.0	190.8
22.5°	141.3	147.8	154.6	168.3	179.0
25°	127.2	132.9	140.5	155.0	166.0
27.5°	112.3	118.1	126.4	141.3	153.1
30°	97.5	103.2	112.7	128.0	141.3
32.5°	82.6	88.7	99.0	115.8	129.1
35°	68.2	74.3	85.3	103.6	115.8
37.5°	54.1	60.9	73.1	91.0	102.4
40°	40.0	48.0	62.5	78.5	88.0
42.5°	26.7	36.6	52.6	65.9	73.9
45°	14.5	25.5	43.4	54.5	60.2
47.5°	8.0	16.4	34.7	43.4	46.8
50°	6.5	11.4	26.7	33.1	33.5
52.5°	5.3	10.3	19.8	23.6	21.7
55°	4.6	9.9	15.6	16.0	13.3
57.5°	3.8	9.5	12.9	11.4	11.4
60°	3.0	9.5	11.0	10.3	10.7
62.5°	2.3	9.5	9.9	9.1	9.5
65°	1.9	8.8	8.8	8.4	8.8
67.5°	1.9	8.0	8.0	7.6	8.0
70°	1.9	7.6	7.2	7.2	7.2
72.5°	1.5	6.9	6.9	6.5	6.5
75°	1.5	6.1	6.1	5.7	5.7
77.5°	1.5	5.7	5.7	5.3	5.0
80°	1.5	5.0	5.3	5.0	4.2
82.5°	1.5	4.6	5.0	4.6	3.4
85°	1.5	4.2	4.6	4.2	3.0
87.5°	1.1	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	2.82	4.04	3.18	4.35	4.67	4.84	6.07	5.21	6.38	6.69
	3H	4.36	5.45	4.74	5.78	6.15	6.81	7.90	7.20	8.23	8.60
	4H	4.92	5.93	5.32	6.28	6.67	7.73	8.74	8.14	9.10	9.48
	6H	5.47	6.40	5.89	6.77	7.17	8.63	9.56	9.04	9.93	10.32
	8H	5.76	6.64	6.19	7.03	7.44	9.03	9.91	9.46	10.30	10.71
	12H	6.12	6.96	6.55	7.34	7.77	9.46	10.31	9.90	10.69	11.12
4H	2H	4.02	5.03	4.42	5.38	5.77	5.47	6.48	5.88	6.84	7.22
	3H	6.22	7.05	6.63	7.46	7.86	7.71	8.55	8.13	8.95	9.36
	4H	7.27	8.02	7.71	8.44	8.89	8.78	9.53	9.22	9.95	10.40
	6H	8.17	8.81	8.63	9.26	9.73	9.91	10.55	10.37	11.00	11.47
	8H	8.55	9.16	9.02	9.61	10.08	10.43	11.04	10.90	11.48	11.95
	12H	8.97	9.50	9.46	9.99	10.46	11.00	11.53	11.48	12.02	12.49
8H	4H	8.07	8.68	8.54	9.13	9.60	9.28	9.88	9.75	10.33	10.80
	6H	9.46	9.96	9.96	10.45	10.94	10.69	11.18	11.19	11.68	12.16
	8H	10.18	10.63	10.71	11.15	11.64	11.43	11.88	11.95	12.39	12.89
	12H	10.93	11.33	11.45	11.82	12.39	12.25	12.65	12.77	13.14	13.72
12H	4H	8.24	8.77	8.72	9.25	9.73	9.38	9.91	9.87	10.40	10.87
	6H	9.79	10.24	10.32	10.76	11.25	10.91	11.35	11.43	11.87	12.36
	8H	10.72	11.11	11.23	11.61	12.18	11.80	12.19	12.31	12.69	13.26