

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: P1058340

Luminaire Tested: S122RDR-H290D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058340
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: S122RDR-H290D940-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

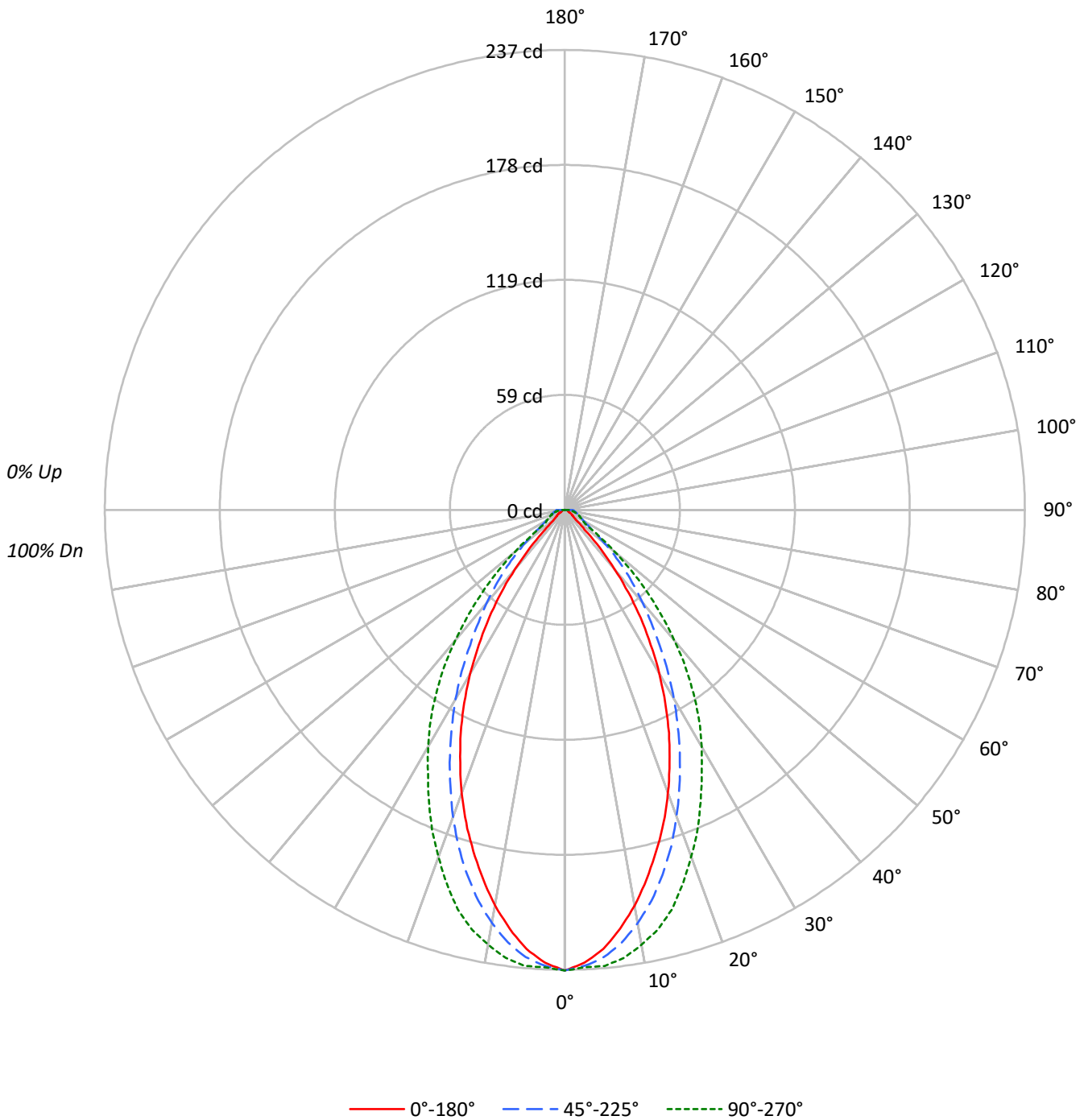
Lumens per Lamp: N/A
Luminaire Lumens: 258.4 lumens
Efficiency: N/A
Efficacy: 22.1 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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									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	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													100															
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90													90															
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81													81															
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74													74															
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67													67															
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61													61															
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56													56															
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52													52															
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48													48															
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45													45															
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42													42															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4381	4381	4381
5°	4208	4286	4370
10°	3879	4051	4265
15°	3477	3716	4071
20°	3052	3305	3737
25°	2584	2854	3372
30°	2073	2395	3002
35°	1532	1917	2602
40°	961	1501	2115
45°	376	1130	1566
50°	187	764	959
55°	148	502	428
60°	111	406	391
65°	83	380	380
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°	54.8	21.2
20°-30°	65.6	25.4
30°-40°	55.2	21.4
40°-50°	31.4	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°	142.1	55.0
0°-40°	197.3	76.3
0°-60°	241.1	93.3
0°-90°	258.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	258.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	237	237	237	237	237	
5°	227	232	231	234	236	21
15°	182	188	194	206	213	51
25°	127	133	140	155	166	58
35°	68	74	85	103	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°	237.4	237.4	237.4	237.4	237.4
2.5°	233.6	237.8	235.2	235.5	235.9
5°	227.2	232.1	231.4	234.0	235.9
7.5°	217.7	223.0	224.9	229.5	232.9
10°	207.0	213.1	216.2	223.4	227.6
12.5°	194.9	201.7	206.3	215.4	221.5
15°	182.0	188.4	194.5	205.9	213.1
17.5°	169.1	175.5	182.0	194.5	202.1
20°	155.4	161.5	168.3	181.6	190.3
22.5°	140.9	147.4	154.2	167.9	178.6
25°	126.9	132.6	140.2	154.6	165.6
27.5°	112.1	117.8	126.1	140.9	152.7
30°	97.3	103.0	112.4	127.6	140.9
32.5°	82.4	88.5	98.8	115.5	128.8
35°	68.0	74.1	85.1	103.3	115.5
37.5°	53.9	60.8	72.9	90.8	102.2
40°	39.9	47.9	62.3	78.3	87.8
42.5°	26.6	36.5	52.4	65.7	73.7
45°	14.4	25.5	43.3	54.3	60.0
47.5°	8.0	16.3	34.6	43.3	46.7
50°	6.5	11.4	26.6	33.1	33.4
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	10.6
62.5°	2.3	9.5	9.9	9.1	9.5
65°	1.9	8.7	8.7	8.4	8.7
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	6.8	6.8	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	4.9
80°	1.5	4.9	5.3	4.9	4.2
82.5°	1.5	4.6	4.9	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	2.83	4.05	3.19	4.36	4.67	4.85	6.07	5.22	6.38	6.70
	3H	4.37	5.46	4.75	5.79	6.15	6.82	7.91	7.20	8.24	8.60
	4H	4.92	5.93	5.33	6.29	6.67	7.74	8.75	8.15	9.10	9.49
	6H	5.47	6.40	5.89	6.77	7.17	8.62	9.55	9.03	9.92	10.31
	8H	5.76	6.64	6.19	7.03	7.44	9.02	9.90	9.45	10.29	10.70
	12H	6.12	6.96	6.55	7.34	7.77	9.46	10.30	9.89	10.68	11.11
4H	2H	4.00	5.01	4.41	5.37	5.75	5.46	6.48	5.87	6.83	7.21
	3H	6.20	7.04	6.62	7.44	7.85	7.71	8.54	8.12	8.95	9.35
	4H	7.26	8.01	7.70	8.43	8.87	8.79	9.53	9.22	9.95	10.40
	6H	8.15	8.80	8.61	9.24	9.71	9.89	10.54	10.35	10.98	11.45
	8H	8.53	9.14	9.00	9.59	10.06	10.41	11.02	10.88	11.47	11.94
	12H	8.95	9.49	9.44	9.97	10.45	10.98	11.52	11.47	12.00	12.48
8H	4H	8.06	8.67	8.53	9.12	9.59	9.28	9.88	9.75	10.33	10.80
	6H	9.44	9.93	9.94	10.43	10.91	10.66	11.16	11.17	11.66	12.14
	8H	10.16	10.61	10.68	11.12	11.62	11.41	11.86	11.93	12.37	12.87
	12H	10.92	11.31	11.43	11.80	12.38	12.24	12.63	12.76	13.13	13.70
12H	4H	8.22	8.76	8.71	9.24	9.72	9.38	9.91	9.86	10.40	10.87
	6H	9.76	10.21	10.29	10.73	11.22	10.88	11.33	11.40	11.84	12.34
	8H	10.69	11.08	11.20	11.58	12.15	11.77	12.17	12.29	12.66	13.23