

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: P1058344

Luminaire Tested: S122RDRP-H290D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058344
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-H290D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

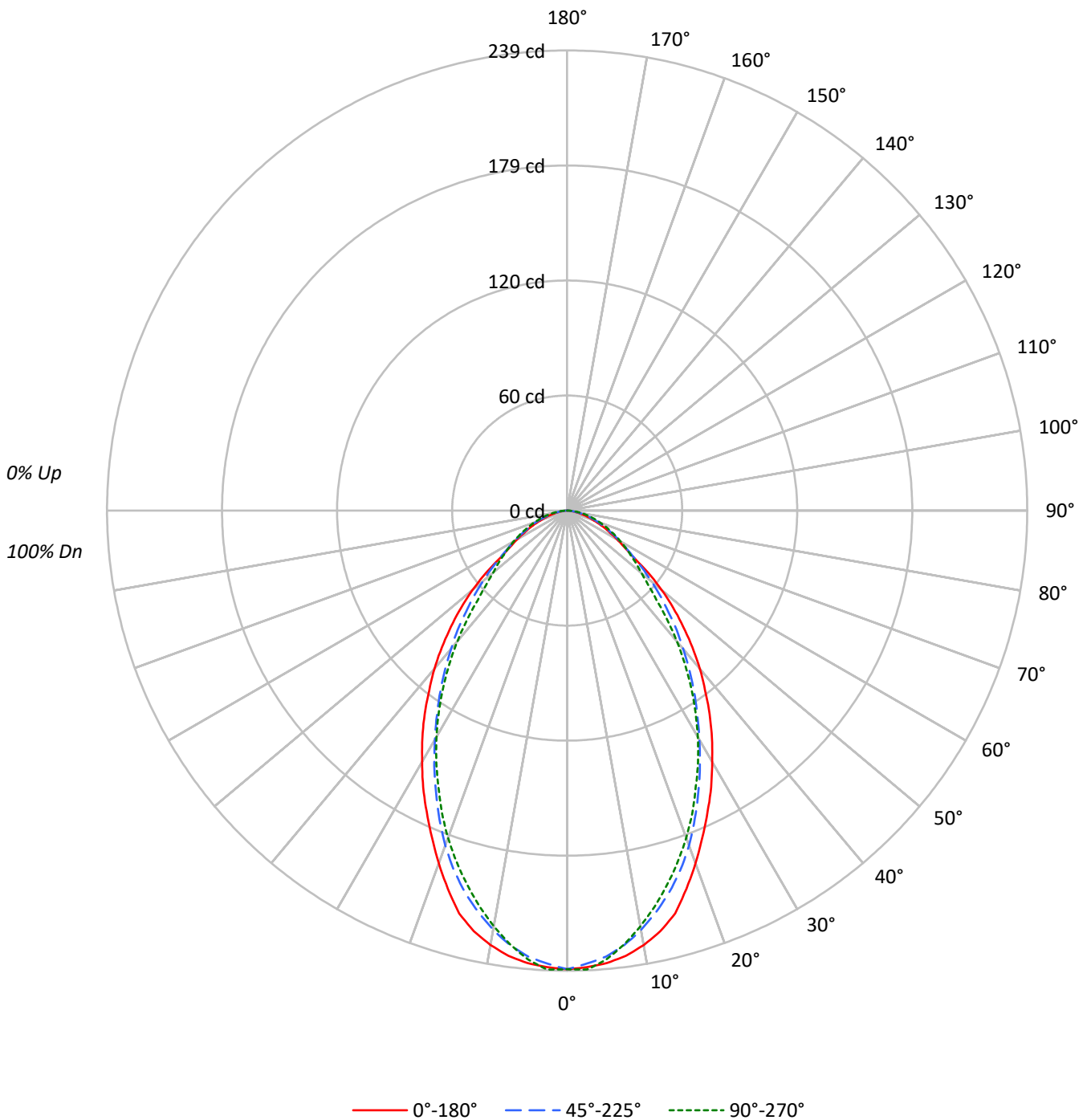
Lumens per Lamp: N/A
Luminaire Lumens: 361.7 lumens
Efficiency: N/A
Efficacy: 30.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4395	4395	4395
5°	4370	4307	4334
10°	4293	4143	4107
15°	4138	3920	3840
20°	3829	3635	3552
25°	3514	3282	3221
30°	3209	2925	2894
35°	2906	2588	2530
40°	2585	2257	2139
45°	2226	1939	1712
50°	1840	1633	1438
55°	1329	1354	1293
60°	1107	1163	1177
65°	943	1009	1078
70°	777	901	982
75°	649	756	891
80°	489	606	808
85°	169	318	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2226 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	6.1
10°-20°	58.0	16.0
20°-30°	75.0	20.7
30°-40°	73.6	20.3
40°-50°	57.9	16.0
50°-60°	38.0	10.5
60°-70°	23.1	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°	155.0	42.9
0°-40°	228.6	63.2
0°-60°	324.6	89.7
0°-90°	361.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	361.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	238	238	238	238	238	
5°	236	236	232	234	234	22
15°	217	214	205	202	201	60
25°	173	167	161	160	158	79
35°	129	122	115	114	112	80
45°	85	80	74	69	66	66
55°	41	44	42	41	40	39
65°	22	22	23	24	25	21
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°	238.2	238.2	238.2	238.2	238.2
2.5°	237.4	237.8	235.5	237.8	238.6
5°	235.9	235.9	232.5	234.0	234.0
7.5°	233.3	232.9	227.6	227.6	227.2
10°	229.1	227.6	221.1	220.0	219.2
12.5°	223.8	221.1	213.5	211.6	210.5
15°	216.6	213.5	205.2	202.5	201.0
17.5°	206.0	202.9	195.7	192.7	191.2
20°	195.0	190.4	185.1	182.4	180.9
22.5°	183.6	178.3	173.3	171.4	169.9
25°	172.6	166.9	161.2	160.4	158.2
27.5°	162.0	155.1	149.4	149.1	147.2
30°	150.6	143.4	137.3	137.7	135.8
32.5°	140.0	133.1	125.9	126.3	124.0
35°	129.0	121.8	114.9	114.5	112.3
37.5°	117.6	110.8	104.3	102.8	100.5
40°	107.3	100.5	93.7	91.0	88.8
42.5°	96.3	90.3	84.2	80.0	77.0
45°	85.3	80.0	74.3	69.0	65.6
47.5°	74.7	70.5	65.6	59.2	56.9
50°	64.1	61.1	56.9	51.2	50.1
52.5°	53.1	52.0	49.3	45.5	45.1
55°	41.3	43.6	42.1	40.6	40.2
57.5°	34.9	35.3	36.4	36.0	36.0
60°	30.0	30.0	31.5	31.9	31.9
62.5°	25.4	25.8	27.3	28.1	28.1
65°	21.6	22.0	23.1	24.3	24.7
67.5°	17.8	18.6	19.7	20.9	21.2
70°	14.4	15.2	16.7	17.8	18.2
72.5°	11.8	12.1	13.7	14.8	15.2
75°	9.1	9.5	10.6	12.1	12.5
77.5°	6.4	7.2	8.3	9.5	10.2
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	11.27	12.67	11.64	12.98	13.30	11.44	12.84	11.81	13.15	13.46
	3H	12.40	13.65	12.78	13.98	14.34	12.90	14.15	13.28	14.48	14.84
	4H	12.75	13.92	13.16	14.27	14.65	13.44	14.61	13.84	14.96	15.34
	6H	12.94	14.01	13.35	14.38	14.77	13.86	14.93	14.27	15.30	15.69
	8H	12.97	13.98	13.39	14.37	14.78	13.98	15.00	14.41	15.39	15.79
	12H	12.95	13.92	13.38	14.31	14.74	14.07	15.04	14.50	15.42	15.85
4H	2H	11.73	12.89	12.13	13.24	13.62	11.87	13.03	12.27	13.38	13.76
	3H	13.07	14.02	13.48	14.43	14.83	13.54	14.50	13.95	14.90	15.30
	4H	13.51	14.37	13.94	14.79	15.23	14.20	15.06	14.64	15.48	15.92
	6H	13.78	14.52	14.24	14.97	15.43	14.74	15.48	15.20	15.93	16.39
	8H	13.83	14.52	14.29	14.97	15.44	14.91	15.60	15.37	16.05	16.52
	12H	13.82	14.44	14.31	14.92	15.39	15.03	15.64	15.51	16.12	16.60
8H	4H	13.72	14.42	14.19	14.86	15.33	14.35	15.05	14.82	15.49	15.96
	6H	14.07	14.64	14.57	15.13	15.61	14.98	15.55	15.48	16.05	16.53
	8H	14.15	14.66	14.67	15.17	15.66	15.22	15.73	15.74	16.24	16.73
	12H	14.16	14.61	14.68	15.11	15.68	15.40	15.85	15.92	16.35	16.92
12H	4H	13.73	14.35	14.22	14.83	15.30	14.34	14.95	14.82	15.44	15.91
	6H	14.09	14.60	14.61	15.12	15.61	14.98	15.49	15.50	16.00	16.49
	8H	14.21	14.66	14.72	15.15	15.72	15.25	15.70	15.77	16.20	16.77