

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: P1058335

Luminaire Tested: S122RDR-H290D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058335
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: S122RDR-H290D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

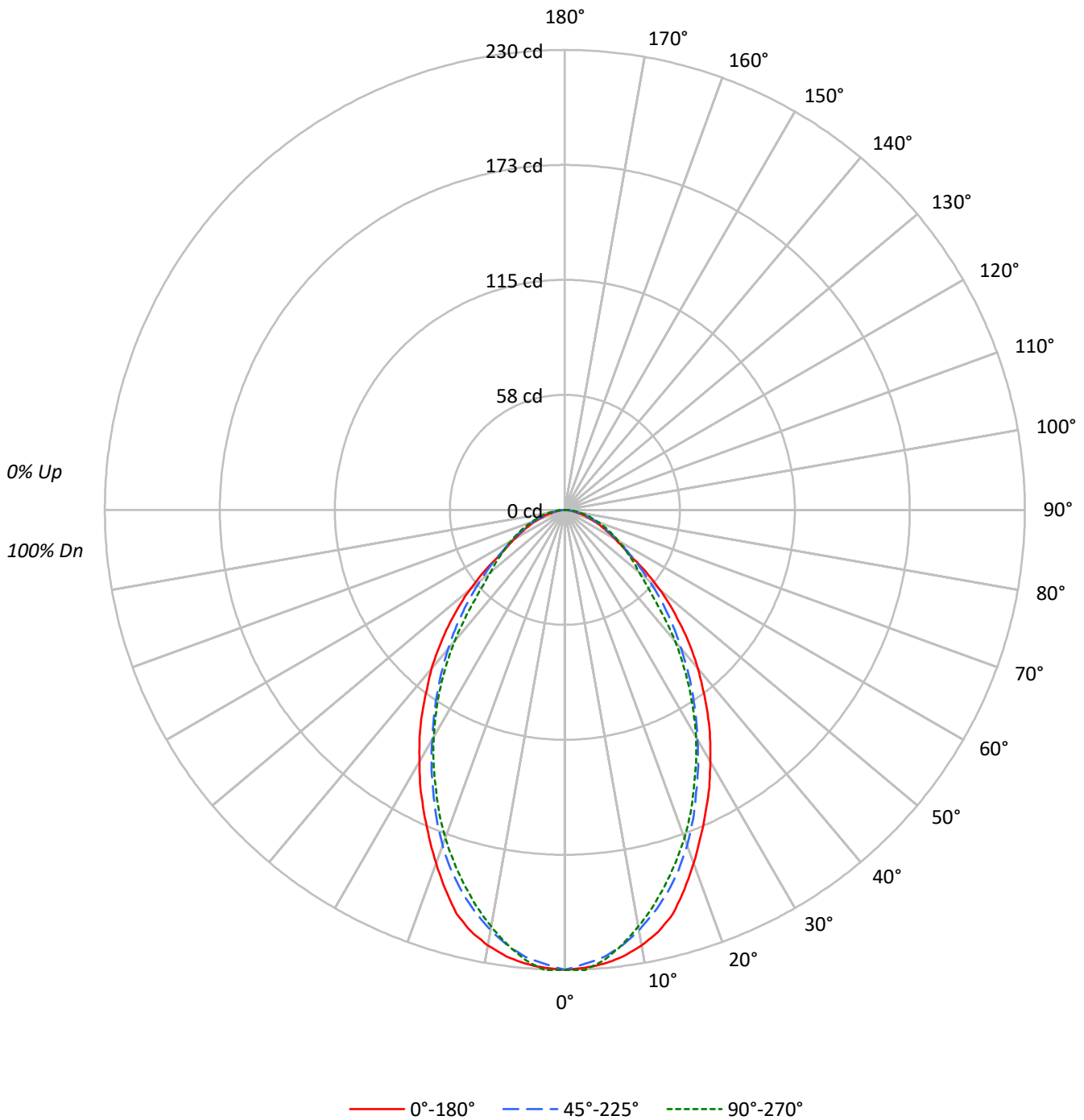
Lumens per Lamp: N/A
Luminaire Lumens: 349.3 lumens
Efficiency: N/A
Efficacy: 29.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4244	4244	4244
5°	4220	4158	4186
10°	4145	4000	3967
15°	3995	3784	3708
20°	3696	3509	3431
25°	3392	3168	3109
30°	3098	2825	2793
35°	2805	2500	2442
40°	2496	2180	2064
45°	2150	1874	1654
50°	1777	1576	1387
55°	1284	1309	1248
60°	1067	1122	1137
65°	913	974	1039
70°	750	869	950
75°	627	734	863
80°	468	584	776
85°	148	318	699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2150 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.3	6.1
10°-20°	56.0	16.0
20°-30°	72.5	20.7
30°-40°	71.1	20.3
40°-50°	56.0	16.0
50°-60°	36.7	10.5
60°-70°	22.3	6.4
70°-80°	11.2	3.2
80°-90°	2.4	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°	149.7	42.9
0°-40°	220.8	63.2
0°-60°	313.4	89.7
0°-90°	349.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	349.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	230	230	230	230	230	
5°	228	228	224	226	226	22
15°	209	206	198	196	194	58
25°	167	161	156	155	153	77
35°	124	118	111	111	108	78
45°	82	77	72	67	63	63
55°	40	42	41	39	39	38
65°	21	21	22	23	24	21
75°	9	9	10	12	12	9
85°	1	1	2	3	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	230.0	230.0	230.0	230.0	230.0
2.5°	229.3	229.6	227.4	229.6	230.4
5°	227.8	227.8	224.5	226.0	226.0
7.5°	225.2	224.9	219.7	219.7	219.4
10°	221.2	219.7	213.5	212.4	211.7
12.5°	216.1	213.5	206.2	204.4	203.3
15°	209.1	206.2	198.1	195.6	194.1
17.5°	198.9	195.9	189.0	186.0	184.6
20°	188.2	183.8	178.7	176.2	174.7
22.5°	177.3	172.1	167.4	165.5	164.1
25°	166.6	161.1	155.6	154.9	152.7
27.5°	156.4	149.8	144.3	143.9	142.1
30°	145.4	138.4	132.6	132.9	131.1
32.5°	135.1	128.5	121.6	122.0	119.8
35°	124.5	117.6	111.0	110.6	108.4
37.5°	113.5	106.9	100.7	99.2	97.0
40°	103.6	97.0	90.5	87.9	85.7
42.5°	93.0	87.2	81.3	77.3	74.3
45°	82.4	77.3	71.8	66.7	63.4
47.5°	72.1	68.1	63.4	57.1	54.9
50°	61.9	59.0	54.9	49.4	48.3
52.5°	51.3	50.2	47.6	43.9	43.6
55°	39.9	42.1	40.7	39.2	38.8
57.5°	33.7	34.1	35.2	34.8	34.8
60°	28.9	28.9	30.4	30.8	30.8
62.5°	24.5	24.9	26.4	27.1	27.1
65°	20.9	21.2	22.3	23.4	23.8
67.5°	17.2	17.9	19.0	20.1	20.5
70°	13.9	14.6	16.1	17.2	17.6
72.5°	11.4	11.7	13.2	14.3	14.6
75°	8.8	9.2	10.3	11.7	12.1
77.5°	6.2	7.0	8.1	9.2	9.9
80°	4.4	4.8	5.5	7.0	7.3
82.5°	2.6	2.9	3.7	4.8	5.1
85°	0.7	1.1	1.5	2.6	3.3
87.5°	0.0	0.0	0.0	0.7	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	11.15	12.55	11.52	12.86	13.18	11.33	12.72	11.69	13.04	13.35
	3H	12.28	13.52	12.66	13.85	14.21	12.78	14.03	13.16	14.36	14.72
	4H	12.63	13.79	13.03	14.14	14.53	13.32	14.49	13.73	14.84	15.22
	6H	12.81	13.89	13.23	14.25	14.65	13.74	14.81	14.15	15.18	15.57
	8H	12.84	13.86	13.27	14.25	14.65	13.86	14.88	14.29	15.27	15.68
	12H	12.83	13.80	13.26	14.18	14.61	13.95	14.92	14.38	15.30	15.73
4H	2H	11.61	12.77	12.01	13.12	13.50	11.75	12.91	12.15	13.26	13.64
	3H	12.94	13.90	13.35	14.30	14.70	13.42	14.38	13.83	14.78	15.18
	4H	13.39	14.25	13.82	14.66	15.11	14.09	14.94	14.52	15.36	15.80
	6H	13.66	14.40	14.12	14.85	15.31	14.62	15.37	15.08	15.81	16.27
	8H	13.71	14.40	14.17	14.85	15.31	14.79	15.48	15.26	15.93	16.40
	12H	13.70	14.32	14.18	14.80	15.27	14.91	15.53	15.40	16.01	16.48
8H	4H	13.60	14.30	14.07	14.74	15.21	14.24	14.93	14.70	15.38	15.85
	6H	13.95	14.52	14.45	15.02	15.49	14.87	15.44	15.37	15.93	16.41
	8H	14.03	14.54	14.55	15.05	15.54	15.11	15.62	15.62	16.13	16.62
	12H	14.05	14.50	14.56	14.99	15.56	15.29	15.74	15.81	16.24	16.80
12H	4H	13.61	14.23	14.10	14.71	15.18	14.22	14.84	14.71	15.32	15.79
	6H	13.98	14.49	14.50	15.00	15.49	14.87	15.38	15.38	15.89	16.38
	8H	14.09	14.54	14.61	15.04	15.61	15.14	15.59	15.66	16.09	16.66