

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: P1058578

Luminaire Tested: S122RDR-H865D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058578
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-H865D935-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

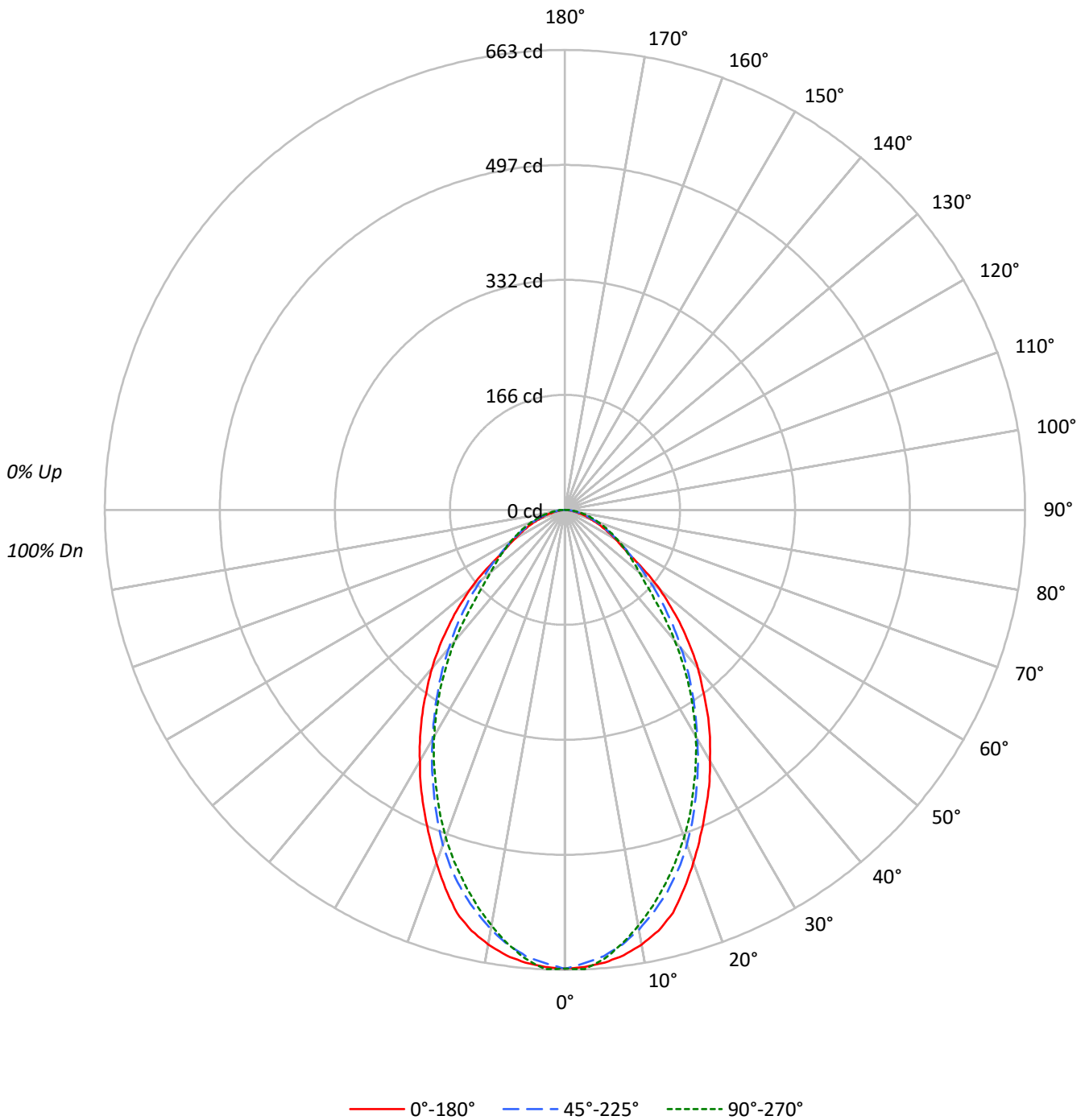
Lumens per Lamp: N/A
Luminaire Lumens: 1004.6 lumens
Efficiency: N/A
Efficacy: 32.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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				
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°	12206	12206	12206
5°	12136	11960	12038
10°	11921	11506	11407
15°	11491	10887	10665
20°	10631	10093	9865
25°	9759	9115	8942
30°	8911	8124	8035
35°	8067	7190	7024
40°	7181	6268	5938
45°	6185	5389	4755
50°	5110	4536	3990
55°	3693	3761	3593
60°	3070	3225	3266
65°	2620	2807	2991
70°	2158	2498	2730
75°	1804	2103	2481
80°	1339	1679	2242
85°	445	889	2011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6185 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	6.1
10°-20°	161.0	16.0
20°-30°	208.4	20.7
30°-40°	204.4	20.3
40°-50°	160.9	16.0
50°-60°	105.5	10.5
60°-70°	64.2	6.4
70°-80°	32.1	3.2
80°-90°	6.9	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°	430.6	42.9
0°-40°	635.0	63.2
0°-60°	901.4	89.7
0°-90°	1004.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1004.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	655	655	646	650	650	62
15°	602	593	570	562	558	168
25°	479	464	448	446	439	220
35°	358	338	319	318	312	223
45°	237	222	206	192	182	183
55°	115	121	117	113	112	109
65°	60	61	64	67	68	60
75°	25	26	30	34	35	27
85°	2	3	4	7	10	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	661.5	661.5	661.5	661.5	661.5
2.5°	659.4	660.4	654.1	660.4	662.6
5°	655.2	655.2	645.7	649.9	649.9
7.5°	647.8	646.8	632.0	632.0	631.0
10°	636.2	632.0	614.1	610.9	608.8
12.5°	621.5	614.1	593.0	587.8	584.6
15°	601.5	593.0	569.9	562.5	558.3
17.5°	572.0	563.5	543.5	535.1	530.9
20°	541.4	528.8	514.0	506.7	502.4
22.5°	509.8	495.1	481.4	476.1	471.9
25°	479.3	463.5	447.7	445.6	439.2
27.5°	449.8	430.8	415.0	414.0	408.7
30°	418.2	398.2	381.3	382.4	377.1
32.5°	388.7	369.7	349.7	350.8	344.4
35°	358.1	338.1	319.2	318.1	311.8
37.5°	326.5	307.6	289.7	285.5	279.1
40°	298.1	279.1	260.2	252.8	246.5
42.5°	267.5	250.7	233.8	222.3	213.8
45°	237.0	222.3	206.5	191.7	182.2
47.5°	207.5	195.9	182.2	164.3	158.0
50°	178.0	169.6	158.0	142.2	139.0
52.5°	147.5	144.3	136.9	126.4	125.3
55°	114.8	121.1	116.9	112.7	111.7
57.5°	96.9	98.0	101.1	100.1	100.1
60°	83.2	83.2	87.4	88.5	88.5
62.5°	70.6	71.6	75.8	77.9	77.9
65°	60.0	61.1	64.3	67.4	68.5
67.5°	49.5	51.6	54.8	57.9	59.0
70°	40.0	42.1	46.3	49.5	50.6
72.5°	32.7	33.7	37.9	41.1	42.1
75°	25.3	26.3	29.5	33.7	34.8
77.5°	17.9	20.0	23.2	26.3	28.4
80°	12.6	13.7	15.8	20.0	21.1
82.5°	7.4	8.4	10.5	13.7	14.7
85°	2.1	3.2	4.2	7.4	9.5
87.5°	0.0	0.0	0.0	2.1	4.2
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	14.82	16.21	15.18	16.53	16.84	15.00	16.39	15.36	16.71	17.02
	3H	15.95	17.19	16.33	17.52	17.89	16.46	17.70	16.83	18.03	18.39
	4H	16.30	17.46	16.70	17.81	18.19	17.00	18.16	17.40	18.51	18.89
	6H	16.48	17.55	16.90	17.92	18.32	17.41	18.48	17.82	18.85	19.24
	8H	16.51	17.53	16.94	17.92	18.32	17.54	18.55	17.97	18.94	19.35
	12H	16.50	17.47	16.93	17.85	18.28	17.62	18.59	18.05	18.97	19.40
4H	2H	15.28	16.44	15.68	16.79	17.17	15.42	16.59	15.83	16.94	17.32
	3H	16.61	17.57	17.03	17.97	18.38	17.09	18.05	17.51	18.45	18.86
	4H	17.06	17.92	17.49	18.33	18.77	17.76	18.62	18.19	19.04	19.48
	6H	17.33	18.07	17.79	18.52	18.98	18.29	19.04	18.75	19.48	19.94
	8H	17.37	18.07	17.84	18.51	18.98	18.46	19.16	18.93	19.60	20.07
	12H	17.37	17.98	17.85	18.46	18.94	18.58	19.20	19.07	19.68	20.15
8H	4H	17.27	17.96	17.74	18.41	18.88	17.91	18.60	18.37	19.05	19.52
	6H	17.62	18.19	18.12	18.68	19.16	18.54	19.11	19.04	19.60	20.08
	8H	17.69	18.21	18.21	18.72	19.21	18.77	19.28	19.29	19.80	20.29
	12H	17.71	18.16	18.22	18.66	19.22	18.96	19.41	19.47	19.90	20.47
12H	4H	17.28	17.90	17.77	18.38	18.85	17.89	18.51	18.38	18.99	19.46
	6H	17.64	18.15	18.16	18.67	19.16	18.53	19.04	19.05	19.56	20.05
	8H	17.76	18.21	18.27	18.70	19.27	18.81	19.26	19.32	19.75	20.32