

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: P1060923

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

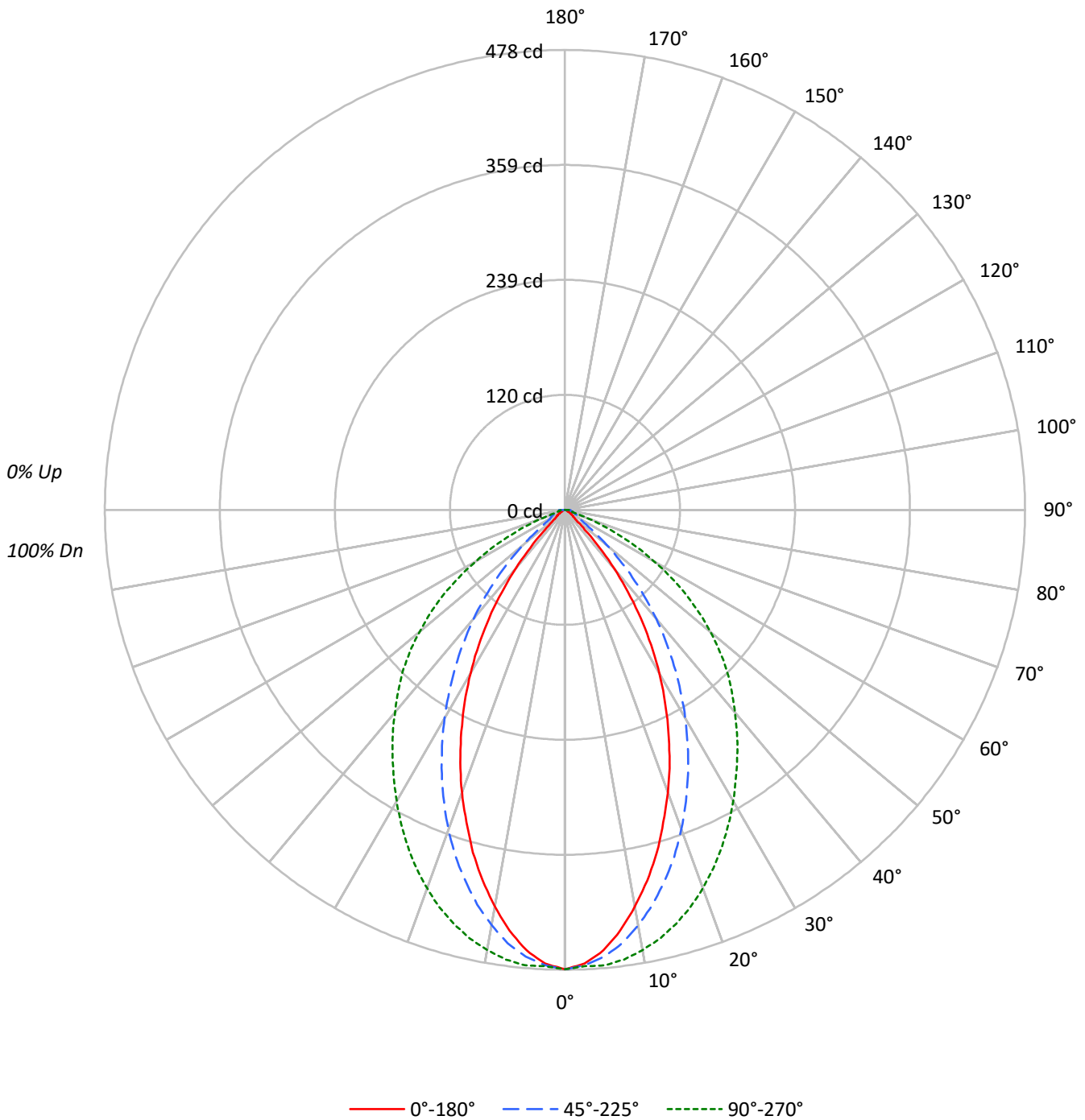
Lumens per Lamp: N/A
Luminaire Lumens: 601.8 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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																												
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																												
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81																												
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72																												
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65																												
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59																												
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																												
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49																												
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45																												
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42																												
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4112	4112	4112
5°	3973	4031	4109
10°	3660	3832	4062
15°	3288	3562	3972
20°	2866	3240	3836
25°	2417	2875	3668
30°	1951	2486	3477
35°	1443	2079	3282
40°	895	1657	3087
45°	354	1208	2907
50°	158	758	2643
55°	126	395	2314
60°	86	300	1843
65°	57	297	1267
70°	55	267	592
75°	73	260	260
80°	109	307	307
85°	217	613	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	7.3
10°-20°	113.0	18.8
20°-30°	142.7	23.7
30°-40°	130.9	21.8
40°-50°	89.2	14.8
50°-60°	48.6	8.1
60°-70°	21.0	3.5
70°-80°	7.7	1.3
80°-90°	4.9	0.8
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°	299.5	49.8
0°-40°	430.5	71.5
0°-60°	568.2	94.4
0°-90°	601.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	601.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	478	478	478	478	478	
5°	460	466	466	471	475	43
15°	369	382	400	428	446	103
25°	254	272	303	351	386	116
35°	137	158	198	261	312	85
45°	29	49	99	176	239	27
55°	8	9	26	97	154	7
65°	3	4	15	30	62	3
75°	2	7	8	8	8	2
85°	2	5	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	477.5	477.5	477.5	477.5	477.5
2.5°	471.9	477.5	473.6	474.7	474.7
5°	459.6	465.7	466.3	471.3	475.3
7.5°	441.1	450.0	454.5	464.6	471.3
10°	418.6	429.3	438.3	455.6	464.6
12.5°	394.5	406.9	420.3	443.3	456.2
15°	368.8	381.7	399.6	428.2	445.5
17.5°	340.2	355.9	377.7	411.9	433.2
20°	312.7	328.4	353.6	392.3	418.6
22.5°	284.1	300.4	328.4	371.6	403.0
25°	254.4	272.4	302.6	350.8	386.1
27.5°	225.3	244.4	276.3	329.0	368.2
30°	196.2	215.2	250.0	306.6	349.7
32.5°	166.5	186.1	223.6	283.0	330.7
35°	137.3	157.5	197.8	260.6	312.2
37.5°	107.6	128.9	172.1	238.7	293.7
40°	79.6	100.9	147.4	216.9	274.6
42.5°	53.2	74.5	122.2	195.6	256.7
45°	29.1	48.8	99.2	176.0	238.7
47.5°	15.7	26.9	76.8	156.9	218.6
50°	11.8	14.6	56.6	136.7	197.3
52.5°	10.1	11.2	39.2	115.5	176.0
55°	8.4	9.0	26.3	97.0	154.1
57.5°	6.7	7.3	19.6	78.5	130.6
60°	5.0	6.2	17.4	60.5	107.0
62.5°	3.9	5.0	16.3	44.3	84.6
65°	2.8	3.9	14.6	30.3	62.2
67.5°	2.8	4.5	12.3	19.6	42.0
70°	2.2	6.2	10.6	12.9	23.5
72.5°	2.2	6.7	9.0	9.0	9.0
75°	2.2	7.3	7.8	7.8	7.8
77.5°	2.2	6.7	7.3	6.7	6.7
80°	2.2	6.2	6.2	6.2	6.2
82.5°	2.2	5.6	6.2	6.2	5.0
85°	2.2	5.0	6.2	6.2	4.5
87.5°	1.7	5.0	5.6	5.6	3.4
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	0.00	0.00	0.00	0.00	0.00	13.32	14.60	13.69	14.91	15.23
	3H	0.00	0.00	0.00	0.00	0.00	13.70	14.83	14.08	15.16	15.52
	4H	0.00	0.00	0.00	0.00	0.37	13.68	14.73	14.08	15.08	15.46
	6H	0.00	0.72	0.17	1.09	1.48	13.66	14.63	14.08	15.00	15.40
	8H	0.33	1.25	0.76	1.64	2.04	13.66	14.58	14.10	14.97	15.37
	12H	0.99	1.86	1.42	2.25	2.68	13.68	14.55	14.11	14.93	15.36
4H	2H	0.00	0.63	0.00	0.98	1.37	13.13	14.19	13.54	14.54	14.92
	3H	1.16	2.02	1.57	2.42	2.83	13.55	14.41	13.97	14.82	15.22
	4H	2.45	3.21	2.88	3.63	4.08	13.55	14.32	13.99	14.74	15.18
	6H	3.57	4.23	4.03	4.68	5.14	13.59	14.25	14.05	14.70	15.17
	8H	4.07	4.69	4.54	5.14	5.61	13.62	14.24	14.09	14.68	15.16
	12H	4.61	5.15	5.10	5.64	6.11	13.68	14.23	14.17	14.71	15.19
8H	4H	3.53	4.15	4.00	4.60	5.07	13.46	14.08	13.93	14.53	15.00
	6H	5.07	5.58	5.58	6.07	6.56	13.54	14.04	14.04	14.54	15.02
	8H	5.88	6.33	6.40	6.85	7.34	13.62	14.08	14.15	14.59	15.09
	12H	6.69	7.10	7.21	7.59	8.16	13.79	14.20	14.31	14.69	15.26
12H	4H	3.72	4.27	4.21	4.75	5.22	13.42	13.97	13.91	14.45	14.93
	6H	5.43	5.89	5.96	6.40	6.90	13.51	13.97	14.04	14.48	14.98
	8H	6.44	6.84	6.96	7.34	7.91	13.65	14.05	14.17	14.55	15.12