

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: P1060912

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060912
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D930-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

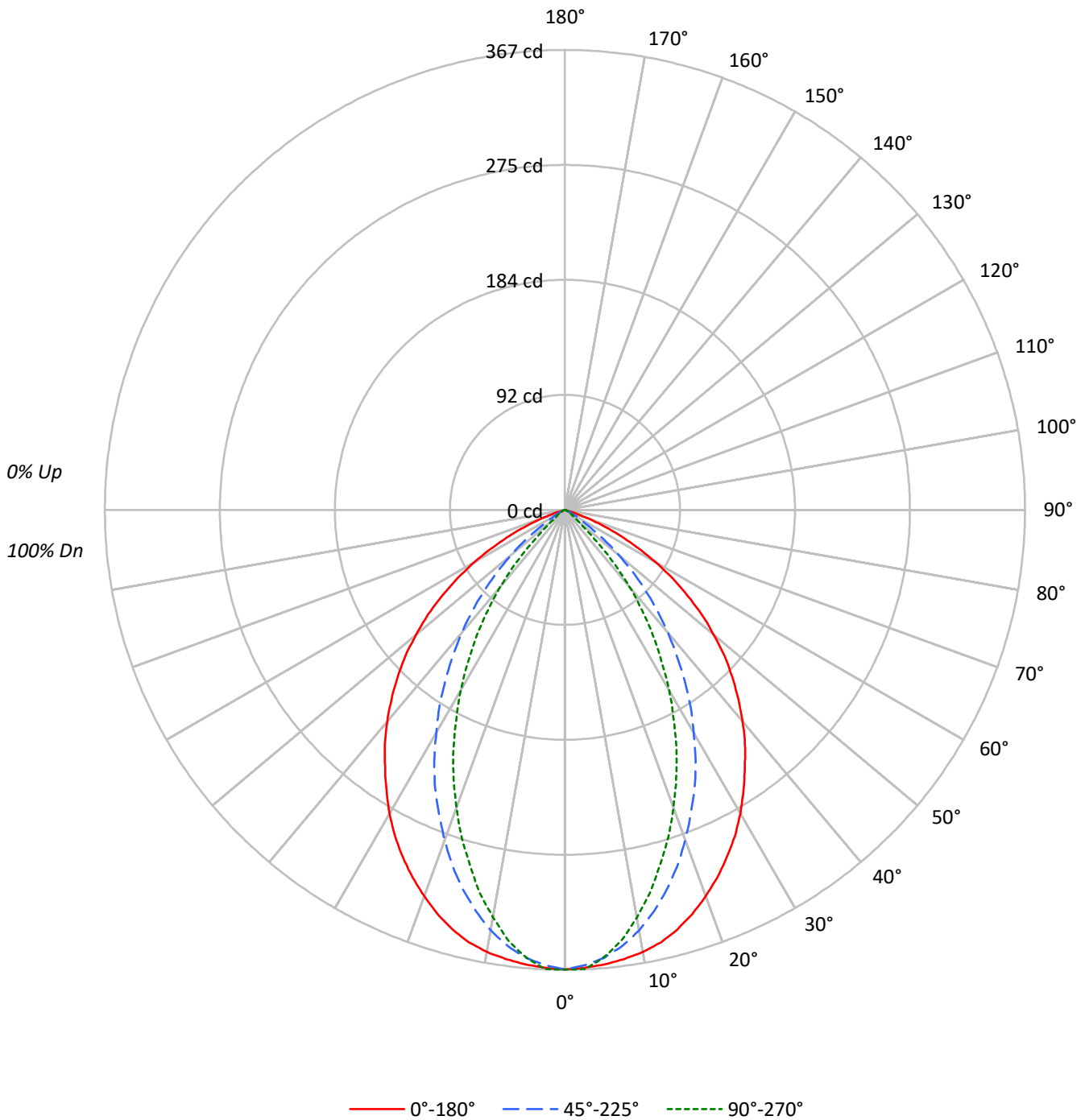
Lumens per Lamp: N/A
Luminaire Lumens: 478.9 lumens
Efficiency: N/A
Efficacy: 27.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	
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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3159	3159	3159
5°	3147	3101	3097
10°	3133	2980	2887
15°	3090	2797	2613
20°	3007	2570	2317
25°	2906	2327	1999
30°	2782	2039	1655
35°	2630	1749	1287
40°	2479	1435	899
45°	2298	1103	446
50°	2074	746	149
55°	1791	381	104
60°	1433	138	72
65°	982	75	33
70°	441	40	28
75°	0	17	17
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2298 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	7.1
10°-20°	88.8	18.5
20°-30°	114.9	24.0
30°-40°	109.2	22.8
40°-50°	77.3	16.1
50°-60°	39.7	8.3
60°-70°	13.9	2.9
70°-80°	1.2	0.2
80°-90°	0.0	0.0
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°	237.6	49.6
0°-40°	346.8	72.4
0°-60°	463.8	96.8
0°-90°	478.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	478.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	367	367	367	367	367	
5°	364	365	359	359	358	35
15°	347	336	314	299	293	97
25°	306	282	245	219	210	141
35°	250	214	166	134	122	157
45°	189	145	91	52	37	145
55°	119	78	25	7	7	107
65°	48	23	4	2	2	48
75°	0	0	0	0	0	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	366.8	366.8	366.8	366.8	366.8
2.5°	365.7	366.8	363.6	366.2	366.8
5°	364.1	364.6	358.8	358.8	358.3
7.5°	361.5	360.4	350.9	347.2	346.6
10°	358.3	354.6	340.8	332.8	330.2
12.5°	353.5	346.6	328.1	316.4	313.2
15°	346.6	336.0	313.8	298.9	293.1
17.5°	338.1	324.4	297.9	279.8	274.0
20°	328.1	310.6	280.4	260.2	252.8
22.5°	317.5	297.3	262.4	239.6	232.1
25°	305.8	282.0	244.9	218.9	210.4
27.5°	293.6	265.5	225.8	198.8	187.6
30°	279.8	249.1	205.1	177.0	166.4
32.5°	265.0	231.1	186.6	156.4	143.6
35°	250.2	213.6	166.4	134.1	122.4
37.5°	235.9	197.2	146.3	112.4	101.2
40°	220.5	179.1	127.7	92.8	80.0
42.5°	204.6	161.7	108.7	72.6	58.8
45°	188.7	145.2	90.6	51.9	36.6
47.5°	172.8	127.7	73.1	32.9	19.6
50°	154.8	110.8	55.7	17.5	11.1
52.5°	137.8	94.9	39.8	10.1	8.5
55°	119.3	78.4	25.4	7.4	6.9
57.5°	101.8	62.5	14.3	5.8	5.3
60°	83.2	48.2	8.0	4.8	4.2
62.5°	64.7	35.0	5.3	3.2	2.7
65°	48.2	23.3	3.7	2.1	1.6
67.5°	31.8	13.3	2.7	1.1	1.1
70°	17.5	6.4	1.6	1.1	1.1
72.5°	6.4	2.1	1.1	0.5	0.5
75°	0.0	0.5	0.5	0.5	0.5
77.5°	0.0	0.0	0.0	0.0	0.5
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.52	13.78	12.89	14.09	14.41	0.00	0.00	0.00	0.00	0.00
	3H	12.80	13.91	13.18	14.24	14.60	0.00	0.00	0.00	0.00	0.00
	4H	12.72	13.75	13.13	14.10	14.49	0.00	0.00	0.00	0.00	0.00
	6H	12.64	13.58	13.05	13.95	14.34	0.00	0.00	0.00	0.00	0.00
	8H	12.59	13.48	13.02	13.87	14.28	0.00	0.00	0.00	0.00	0.00
	12H	12.55	13.39	12.98	13.77	14.20	0.00	0.00	0.00	0.00	0.00
4H	2H	12.29	13.32	12.70	13.67	14.06	0.00	0.00	0.00	0.00	0.00
	3H	12.58	13.41	12.99	13.81	14.22	0.00	0.00	0.00	0.00	0.00
	4H	12.49	13.22	12.92	13.64	14.09	0.00	0.00	0.00	0.00	0.00
	6H	12.40	13.03	12.86	13.48	13.95	0.00	0.00	0.00	0.00	0.00
	8H	12.34	12.93	12.81	13.37	13.85	0.00	0.00	0.00	0.00	0.00
	12H	12.29	12.80	12.77	13.29	13.76	0.00	0.00	0.00	0.00	0.00
8H	4H	12.34	12.93	12.81	13.37	13.85	0.00	0.00	0.00	0.00	0.00
	6H	12.23	12.71	12.73	13.21	13.69	0.00	0.00	0.00	0.00	0.00
	8H	12.16	12.59	12.69	13.11	13.60	0.00	0.00	0.00	0.00	0.00
	12H	12.11	12.49	12.63	12.99	13.56	0.00	0.00	0.00	0.00	0.00
12H	4H	12.29	12.80	12.77	13.29	13.76	0.00	0.00	0.00	0.00	0.00
	6H	12.16	12.59	12.69	13.11	13.60	0.00	0.00	0.00	0.00	0.00
	8H	12.11	12.49	12.63	12.99	13.56	0.00	0.00	0.00	0.00	0.00