

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: P1060894

Luminaire Tested: S124RDR-H575D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060894
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-H575D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

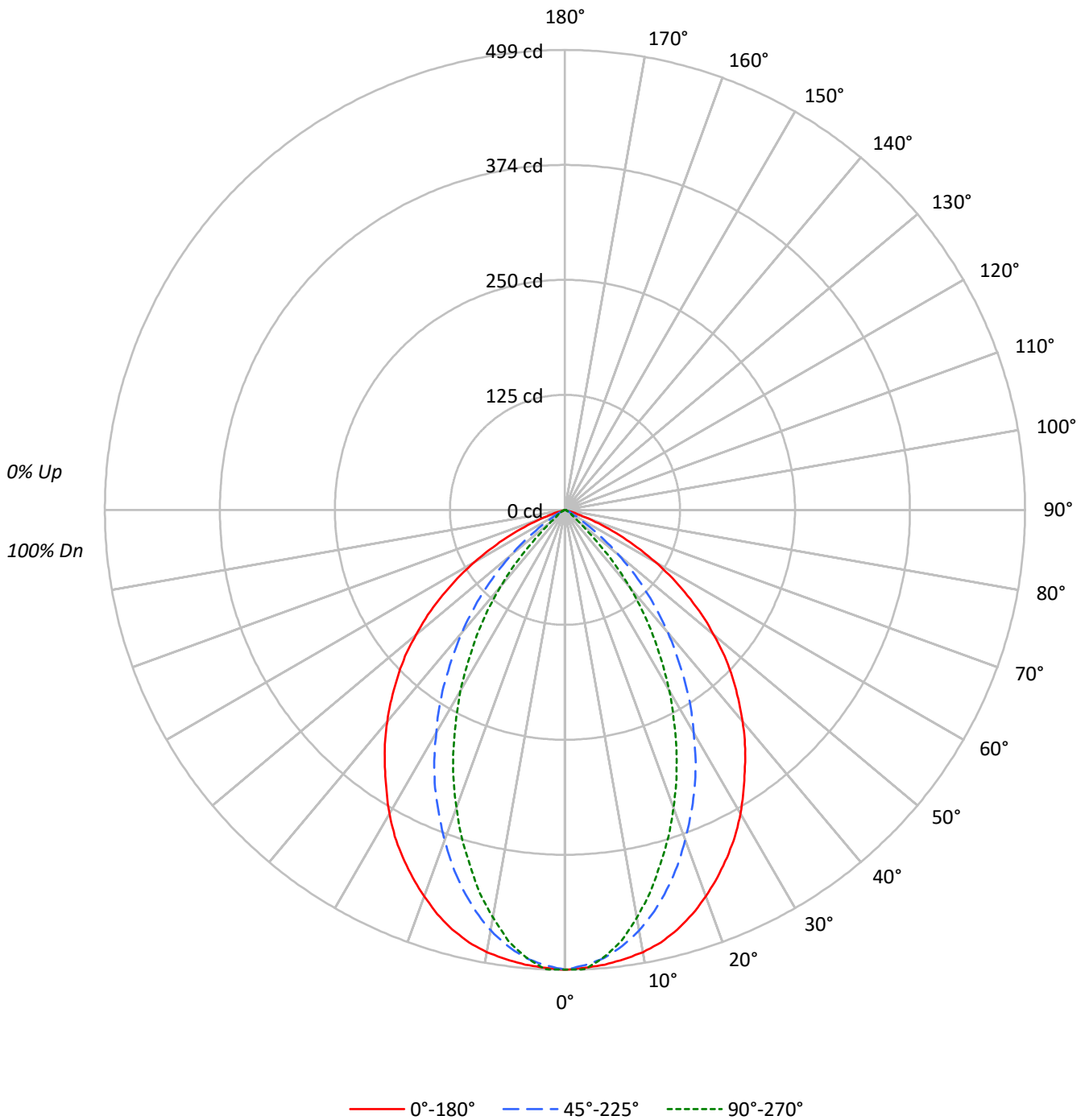
Lumens per Lamp: N/A
Luminaire Lumens: 651.4 lumens
Efficiency: N/A
Efficacy: 37.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	4296	4296	4296
5°	4281	4219	4212
10°	4261	4054	3927
15°	4203	3805	3554
20°	4090	3495	3151
25°	3953	3165	2719
30°	3785	2774	2251
35°	3577	2380	1750
40°	3371	1953	1224
45°	3126	1502	605
50°	2820	1014	202
55°	2435	519	141
60°	1950	186	100
65°	1337	102	45
70°	599	55	35
75°	0	23	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3126 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	7.1
10°-20°	120.8	18.5
20°-30°	156.3	24.0
30°-40°	148.5	22.8
40°-50°	105.2	16.1
50°-60°	54.0	8.3
60°-70°	18.9	2.9
70°-80°	1.6	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°	323.2	49.6
0°-40°	471.7	72.4
0°-60°	630.9	96.9
0°-90°	651.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	651.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	499	499	499	499	499	
5°	495	496	488	488	487	47
15°	472	457	427	407	399	133
25°	416	384	333	298	286	191
35°	340	290	226	182	166	213
45°	257	198	123	71	50	198
55°	162	107	35	10	9	145
65°	66	32	5	3	2	65
75°	0	1	1	1	1	5
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°	498.9	498.9	498.9	498.9	498.9
2.5°	497.4	498.9	494.6	498.2	498.9
5°	495.3	496.0	488.1	488.1	487.3
7.5°	491.7	490.2	477.3	472.2	471.5
10°	487.3	482.3	463.6	452.7	449.1
12.5°	480.9	471.5	446.3	430.4	426.1
15°	471.5	457.1	426.8	406.6	398.7
17.5°	460.0	441.2	405.2	380.7	372.7
20°	446.3	422.5	381.4	354.0	343.9
22.5°	431.8	404.4	356.9	325.9	315.8
25°	416.0	383.5	333.1	297.7	286.2
27.5°	399.4	361.2	307.1	270.3	255.2
30°	380.7	338.8	279.0	240.8	226.4
32.5°	360.5	314.3	253.8	212.7	195.4
35°	340.3	290.5	226.4	182.4	166.5
37.5°	320.8	268.2	199.0	152.8	137.7
40°	299.9	243.7	173.7	126.2	108.9
42.5°	278.3	219.9	147.8	98.8	80.0
45°	256.7	197.5	123.3	70.7	49.7
47.5°	235.0	173.7	99.5	44.7	26.7
50°	210.5	150.7	75.7	23.8	15.1
52.5°	187.4	129.0	54.1	13.7	11.5
55°	162.2	106.7	34.6	10.1	9.4
57.5°	138.4	85.1	19.5	7.9	7.2
60°	113.2	65.6	10.8	6.5	5.8
62.5°	88.0	47.6	7.2	4.3	3.6
65°	65.6	31.7	5.0	2.9	2.2
67.5°	43.3	18.0	3.6	1.4	1.4
70°	23.8	8.7	2.2	1.4	1.4
72.5°	8.7	2.9	1.4	0.7	0.7
75°	0.0	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.7
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	13.59	14.85	13.96	15.16	15.48	0.00	0.00	0.00	0.00	0.00
	3H	13.87	14.98	14.25	15.31	15.67	0.00	0.00	0.00	0.00	0.00
	4H	13.80	14.82	14.20	15.17	15.56	0.00	0.00	0.00	0.00	0.00
	6H	13.71	14.65	14.13	15.02	15.41	0.00	0.00	0.00	0.00	0.00
	8H	13.66	14.55	14.10	14.94	15.35	0.00	0.00	0.00	0.00	0.00
	12H	13.62	14.46	14.05	14.85	15.28	0.00	0.00	0.00	0.00	0.00
4H	2H	13.37	14.39	13.77	14.74	15.13	0.00	0.00	0.00	0.00	0.00
	3H	13.65	14.48	14.07	14.89	15.29	0.00	0.00	0.00	0.00	0.00
	4H	13.56	14.29	14.00	14.72	15.16	0.00	0.00	0.00	0.00	0.00
	6H	13.47	14.10	13.94	14.55	15.02	0.00	0.00	0.00	0.00	0.00
	8H	13.41	14.00	13.88	14.45	14.92	0.00	0.00	0.00	0.00	0.00
	12H	13.36	13.87	13.85	14.36	14.84	0.00	0.00	0.00	0.00	0.00
8H	4H	13.41	14.00	13.88	14.45	14.92	0.00	0.00	0.00	0.00	0.00
	6H	13.30	13.78	13.81	14.28	14.76	0.00	0.00	0.00	0.00	0.00
	8H	13.23	13.66	13.76	14.18	14.67	0.00	0.00	0.00	0.00	0.00
	12H	13.18	13.56	13.70	14.06	14.63	0.00	0.00	0.00	0.00	0.00
12H	4H	13.36	13.88	13.85	14.36	14.84	0.00	0.00	0.00	0.00	0.00
	6H	13.23	13.66	13.76	14.18	14.67	0.00	0.00	0.00	0.00	0.00
	8H	13.18	13.56	13.70	14.06	14.63	0.00	0.00	0.00	0.00	0.00