

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: P1060984

Luminaire Tested: S124RDR-H795D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060984
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-H795D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

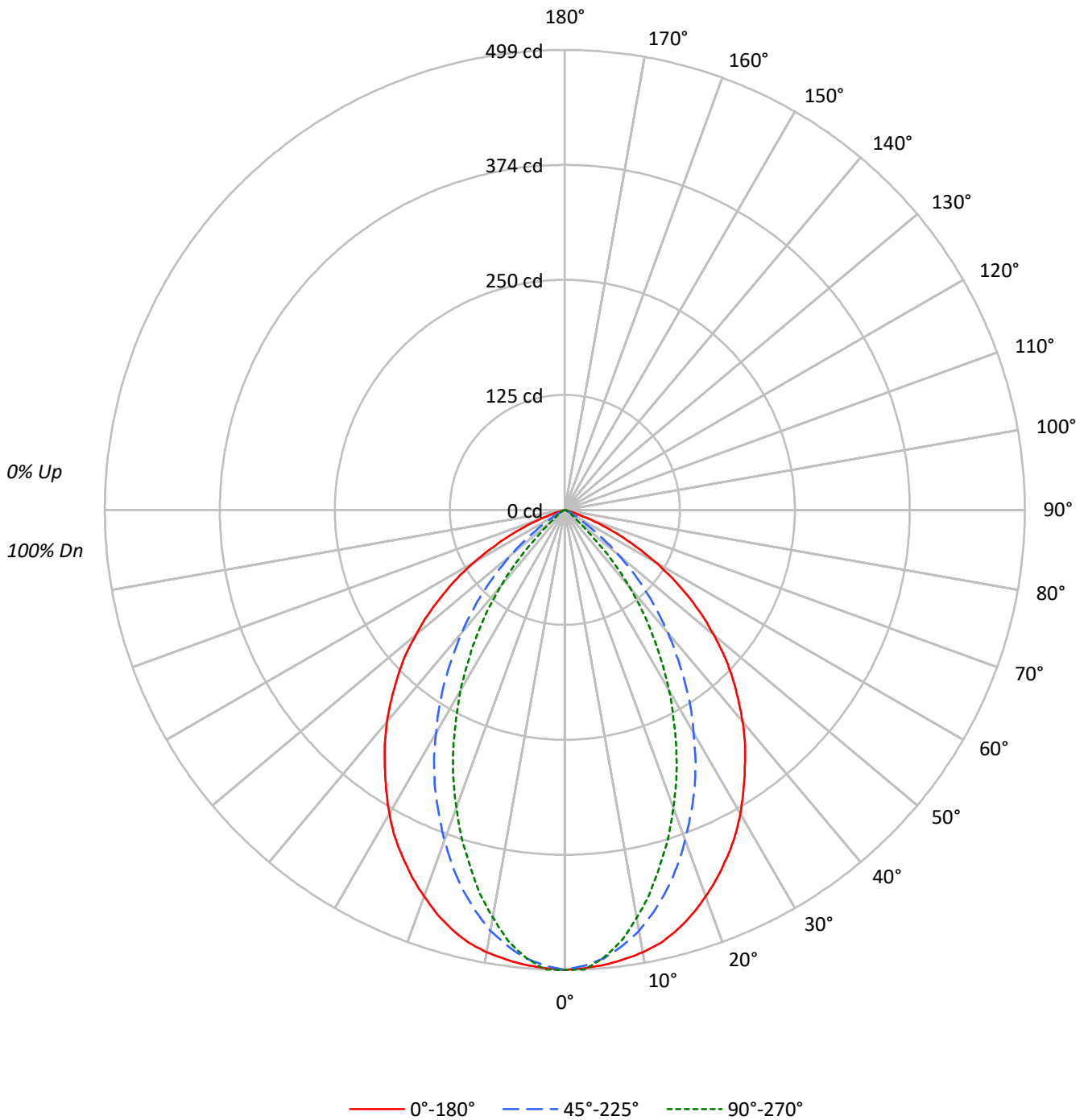
Lumens per Lamp: N/A
Luminaire Lumens: 651.7 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4298	4298	4298
5°	4283	4221	4214
10°	4263	4055	3929
15°	4205	3807	3555
20°	4091	3496	3152
25°	3954	3166	2720
30°	3786	2775	2252
35°	3578	2381	1751
40°	3372	1954	1224
45°	3127	1502	606
50°	2821	1014	202
55°	2437	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: 3127 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°	156.4	24.0
30°-40°	148.6	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°	323.3	49.6
0°-40°	471.9	72.4
0°-60°	631.2	96.9
0°-90°	651.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	651.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	499	499	499	499	499	
5°	496	496	488	488	488	47
15°	472	457	427	407	399	133
25°	416	384	333	298	286	191
35°	340	291	226	182	167	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°	499.1	499.1	499.1	499.1	499.1
2.5°	497.6	499.1	494.8	498.4	499.1
5°	495.5	496.2	488.3	488.3	487.5
7.5°	491.9	490.4	477.4	472.4	471.7
10°	487.5	482.5	463.7	452.9	449.3
12.5°	481.1	471.7	446.4	430.6	426.2
15°	471.7	457.3	427.0	406.8	398.8
17.5°	460.1	441.4	405.3	380.8	372.9
20°	446.4	422.6	381.5	354.1	344.0
22.5°	432.0	404.6	357.0	326.0	315.9
25°	416.1	383.7	333.2	297.9	286.3
27.5°	399.6	361.3	307.2	270.5	255.3
30°	380.8	339.0	279.1	240.9	226.5
32.5°	360.6	314.5	253.9	212.8	195.5
35°	340.4	290.7	226.5	182.5	166.6
37.5°	320.9	268.3	199.1	152.9	137.8
40°	300.0	243.8	173.8	126.2	108.9
42.5°	278.4	220.0	147.8	98.8	80.1
45°	256.8	197.6	123.3	70.7	49.8
47.5°	235.1	173.8	99.5	44.7	26.7
50°	210.6	150.7	75.7	23.8	15.1
52.5°	187.5	129.1	54.1	13.7	11.5
55°	162.3	106.7	34.6	10.1	9.4
57.5°	138.5	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	14.88	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	14.83	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