

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: P1061002

Luminaire Tested: S124RDR-H795D935-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061002
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-H795D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

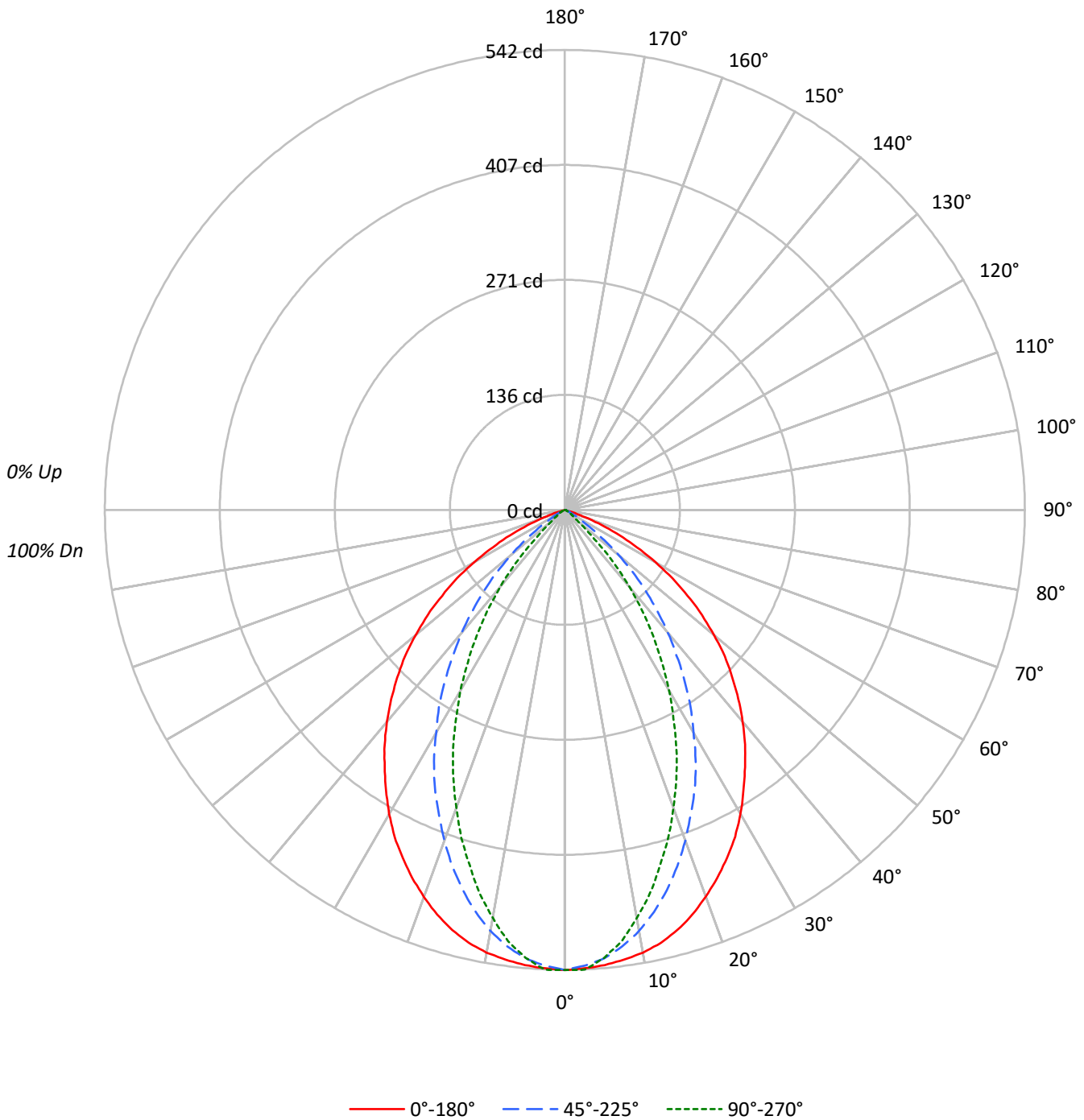
Lumens per Lamp: N/A
Luminaire Lumens: 708.3 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	4671	4671	4671
5°	4655	4587	4580
10°	4633	4407	4271
15°	4571	4137	3865
20°	4446	3800	3426
25°	4297	3440	2957
30°	4116	3017	2447
35°	3890	2587	1904
40°	3666	2123	1331
45°	3399	1632	659
50°	3066	1103	221
55°	2648	564	153
60°	2120	203	109
65°	1453	112	49
70°	652	60	40
75°	0	27	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3399 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	7.1
10°-20°	131.3	18.5
20°-30°	170.0	24.0
30°-40°	161.5	22.8
40°-50°	114.4	16.1
50°-60°	58.7	8.3
60°-70°	20.5	2.9
70°-80°	1.8	0.3
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°	351.4	49.6
0°-40°	512.9	72.4
0°-60°	686.0	96.8
0°-90°	708.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	708.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	538	539	531	531	530	51
15°	513	497	464	442	434	144
25°	452	417	362	324	311	208
35°	370	316	246	198	181	231
45°	279	215	134	77	54	215
55°	176	116	38	11	10	158
65°	71	34	6	3	2	71
75°	0	1	1	1	1	6
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°	542.4	542.4	542.4	542.4	542.4
2.5°	540.9	542.4	537.7	541.7	542.4
5°	538.5	539.3	530.7	530.7	529.9
7.5°	534.6	533.0	518.9	513.4	512.7
10°	529.9	524.4	504.0	492.3	488.4
12.5°	522.8	512.7	485.2	468.0	463.3
15°	512.7	497.0	464.1	442.1	433.5
17.5°	500.1	479.7	440.5	413.9	405.3
20°	485.2	459.3	414.7	384.9	373.9
22.5°	469.5	439.8	388.0	354.3	343.3
25°	452.3	417.0	362.1	323.7	311.2
27.5°	434.3	392.7	333.9	294.0	277.5
30°	413.9	368.4	303.4	261.8	246.1
32.5°	391.9	341.8	275.9	231.2	212.4
35°	370.0	315.9	246.1	198.3	181.1
37.5°	348.8	291.6	216.3	166.2	149.7
40°	326.1	264.9	188.9	137.2	118.4
42.5°	302.6	239.1	160.7	107.4	87.0
45°	279.1	214.8	134.0	76.8	54.1
47.5°	255.5	188.9	108.2	48.6	29.0
50°	228.9	163.8	82.3	25.9	16.5
52.5°	203.8	140.3	58.8	14.9	12.5
55°	176.4	116.0	37.6	11.0	10.2
57.5°	150.5	92.5	21.2	8.6	7.8
60°	123.1	71.3	11.8	7.1	6.3
62.5°	95.6	51.7	7.8	4.7	3.9
65°	71.3	34.5	5.5	3.1	2.4
67.5°	47.0	19.6	3.9	1.6	1.6
70°	25.9	9.4	2.4	1.6	1.6
72.5°	9.4	3.1	1.6	0.8	0.8
75°	0.0	0.8	0.8	0.8	0.8
77.5°	0.0	0.0	0.0	0.0	0.8
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	13.88	15.14	14.25	15.45	15.77	0.00	0.00	0.00	0.00	0.00
	3H	14.16	15.27	14.54	15.60	15.96	0.00	0.00	0.00	0.00	0.00
	4H	14.08	15.11	14.49	15.46	15.85	0.00	0.00	0.00	0.00	0.00
	6H	14.00	14.94	14.41	15.31	15.70	0.00	0.00	0.00	0.00	0.00
	8H	13.95	14.84	14.38	15.23	15.64	0.00	0.00	0.00	0.00	0.00
	12H	13.91	14.75	14.34	15.14	15.57	0.00	0.00	0.00	0.00	0.00
4H	2H	13.66	14.68	14.06	15.03	15.42	0.00	0.00	0.00	0.00	0.00
	3H	13.94	14.77	14.35	15.17	15.58	0.00	0.00	0.00	0.00	0.00
	4H	13.85	14.58	14.28	15.00	15.45	0.00	0.00	0.00	0.00	0.00
	6H	13.76	14.39	14.23	14.84	15.31	0.00	0.00	0.00	0.00	0.00
	8H	13.70	14.29	14.17	14.74	15.21	0.00	0.00	0.00	0.00	0.00
	12H	13.65	14.16	14.14	14.65	15.12	0.00	0.00	0.00	0.00	0.00
8H	4H	13.70	14.29	14.17	14.74	15.21	0.00	0.00	0.00	0.00	0.00
	6H	13.59	14.07	14.10	14.57	15.05	0.00	0.00	0.00	0.00	0.00
	8H	13.52	13.95	14.05	14.47	14.96	0.00	0.00	0.00	0.00	0.00
	12H	13.47	13.85	13.99	14.35	14.92	0.00	0.00	0.00	0.00	0.00
12H	4H	13.65	14.16	14.14	14.65	15.12	0.00	0.00	0.00	0.00	0.00
	6H	13.52	13.95	14.05	14.47	14.96	0.00	0.00	0.00	0.00	0.00
	8H	13.47	13.85	13.99	14.35	14.92	0.00	0.00	0.00	0.00	0.00