

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: P1060993

Luminaire Tested: S124RDR-H795D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060993
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-H795D930-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

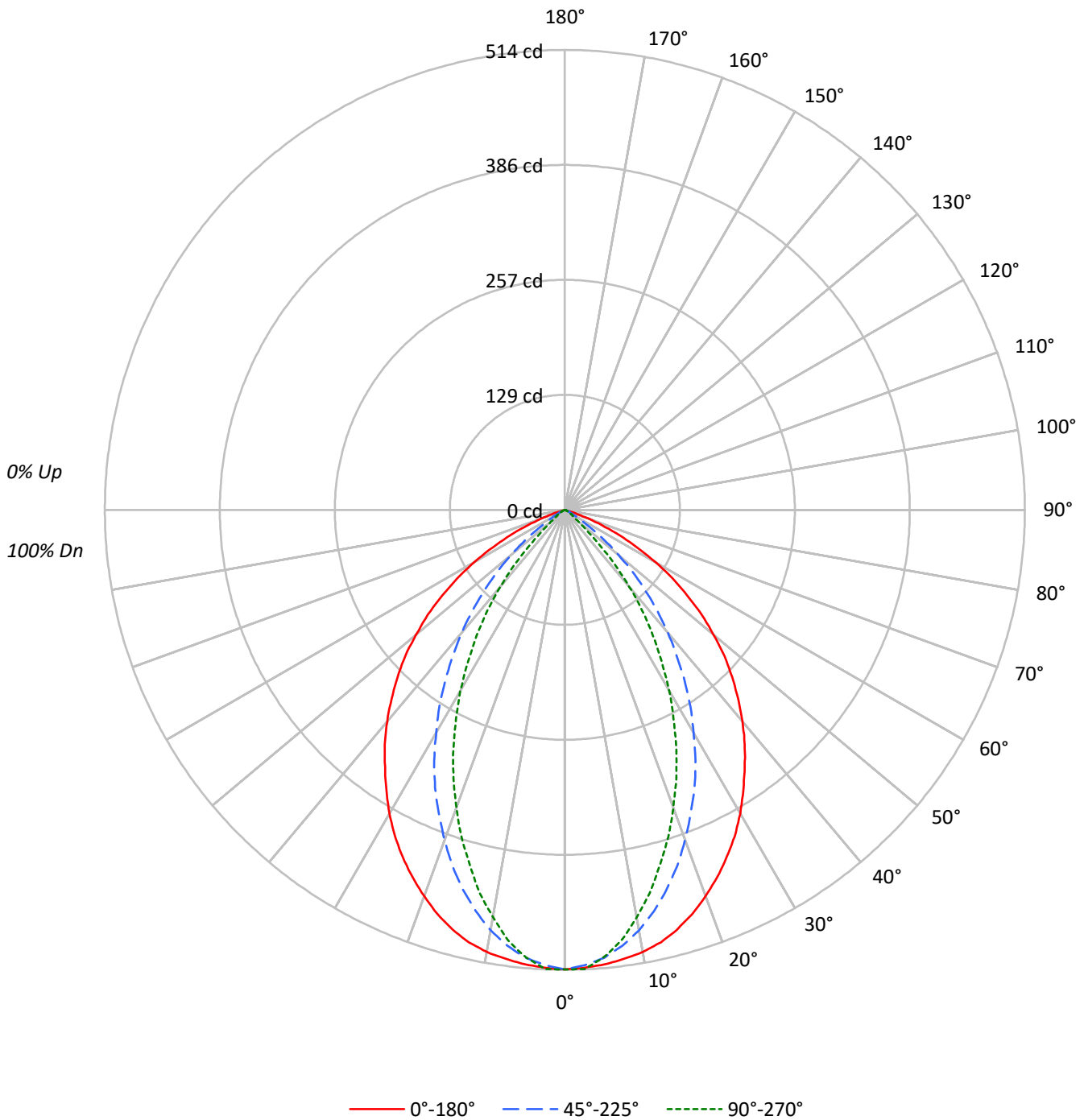
Lumens per Lamp: N/A
Luminaire Lumens: 670.7 lumens
Efficiency: N/A
Efficacy: 28.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4423	4423	4423
5°	4408	4344	4338
10°	4388	4173	4043
15°	4327	3917	3660
20°	4211	3599	3245
25°	4069	3258	2800
30°	3897	2857	2318
35°	3682	2450	1803
40°	3471	2011	1260
45°	3217	1545	624
50°	2903	1044	209
55°	2507	534	144
60°	2006	191	102
65°	1375	106	45
70°	617	55	38
75°	0	23	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3217 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	7.1
10°-20°	124.3	18.5
20°-30°	161.0	24.0
30°-40°	152.9	22.8
40°-50°	108.3	16.1
50°-60°	55.6	8.3
60°-70°	19.5	2.9
70°-80°	1.7	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°	332.7	49.6
0°-40°	485.7	72.4
0°-60°	649.6	96.9
0°-90°	670.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	670.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	514	514	514	514	514	
5°	510	511	502	502	502	48
15°	485	471	439	419	410	136
25°	428	395	343	307	295	197
35°	350	299	233	188	172	219
45°	264	203	127	73	51	203
55°	167	110	36	10	10	149
65°	68	33	5	3	2	67
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°	513.6	513.6	513.6	513.6	513.6
2.5°	512.2	513.6	509.2	512.9	513.6
5°	509.9	510.7	502.5	502.5	501.8
7.5°	506.2	504.7	491.4	486.2	485.4
10°	501.8	496.6	477.3	466.1	462.4
12.5°	495.1	485.4	459.5	443.1	438.7
15°	485.4	470.6	439.4	418.6	410.5
17.5°	473.6	454.3	417.2	391.9	383.8
20°	459.5	435.0	392.7	364.5	354.1
22.5°	444.6	416.4	367.4	335.5	325.1
25°	428.3	394.9	342.9	306.6	294.7
27.5°	411.2	371.9	316.2	278.3	262.8
30°	391.9	348.9	287.3	247.9	233.1
32.5°	371.1	323.6	261.3	219.0	201.2
35°	350.3	299.1	233.1	187.8	171.5
37.5°	330.3	276.1	204.9	157.4	141.8
40°	308.8	250.9	178.9	129.9	112.1
42.5°	286.5	226.4	152.2	101.7	82.4
45°	264.2	203.4	126.9	72.7	51.2
47.5°	242.0	178.9	102.4	46.0	27.5
50°	216.7	155.1	77.9	24.5	15.6
52.5°	193.0	132.9	55.7	14.1	11.9
55°	167.0	109.9	35.6	10.4	9.6
57.5°	142.5	87.6	20.0	8.2	7.4
60°	116.5	67.5	11.1	6.7	5.9
62.5°	90.6	49.0	7.4	4.5	3.7
65°	67.5	32.7	5.2	3.0	2.2
67.5°	44.5	18.6	3.7	1.5	1.5
70°	24.5	8.9	2.2	1.5	1.5
72.5°	8.9	3.0	1.5	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	13.69	14.95	14.06	15.26	15.58	0.00	0.00	0.00	0.00	0.00
	3H	13.97	15.08	14.35	15.41	15.77	0.00	0.00	0.00	0.00	0.00
	4H	13.90	14.92	14.30	15.27	15.66	0.00	0.00	0.00	0.00	0.00
	6H	13.81	14.75	14.23	15.12	15.51	0.00	0.00	0.00	0.00	0.00
	8H	13.76	14.65	14.19	15.04	15.45	0.00	0.00	0.00	0.00	0.00
	12H	13.72	14.56	14.15	14.95	15.38	0.00	0.00	0.00	0.00	0.00
4H	2H	13.47	14.49	13.87	14.84	15.23	0.00	0.00	0.00	0.00	0.00
	3H	13.75	14.58	14.17	14.98	15.39	0.00	0.00	0.00	0.00	0.00
	4H	13.66	14.39	14.09	14.81	15.26	0.00	0.00	0.00	0.00	0.00
	6H	13.57	14.20	14.04	14.65	15.12	0.00	0.00	0.00	0.00	0.00
	8H	13.51	14.10	13.98	14.55	15.02	0.00	0.00	0.00	0.00	0.00
	12H	13.46	13.97	13.95	14.46	14.93	0.00	0.00	0.00	0.00	0.00
8H	4H	13.51	14.10	13.98	14.55	15.02	0.00	0.00	0.00	0.00	0.00
	6H	13.40	13.88	13.91	14.38	14.86	0.00	0.00	0.00	0.00	0.00
	8H	13.33	13.76	13.86	14.28	14.77	0.00	0.00	0.00	0.00	0.00
	12H	13.28	13.66	13.80	14.16	14.73	0.00	0.00	0.00	0.00	0.00
12H	4H	13.46	13.97	13.95	14.46	14.94	0.00	0.00	0.00	0.00	0.00
	6H	13.33	13.76	13.86	14.28	14.77	0.00	0.00	0.00	0.00	0.00
	8H	13.28	13.66	13.80	14.16	14.73	0.00	0.00	0.00	0.00	0.00