

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: P1060948

Luminaire Tested: S124RDR-H795D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060948
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-H795D830-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, 80 CRI LEDS
Ballast/Driver: -

Summary

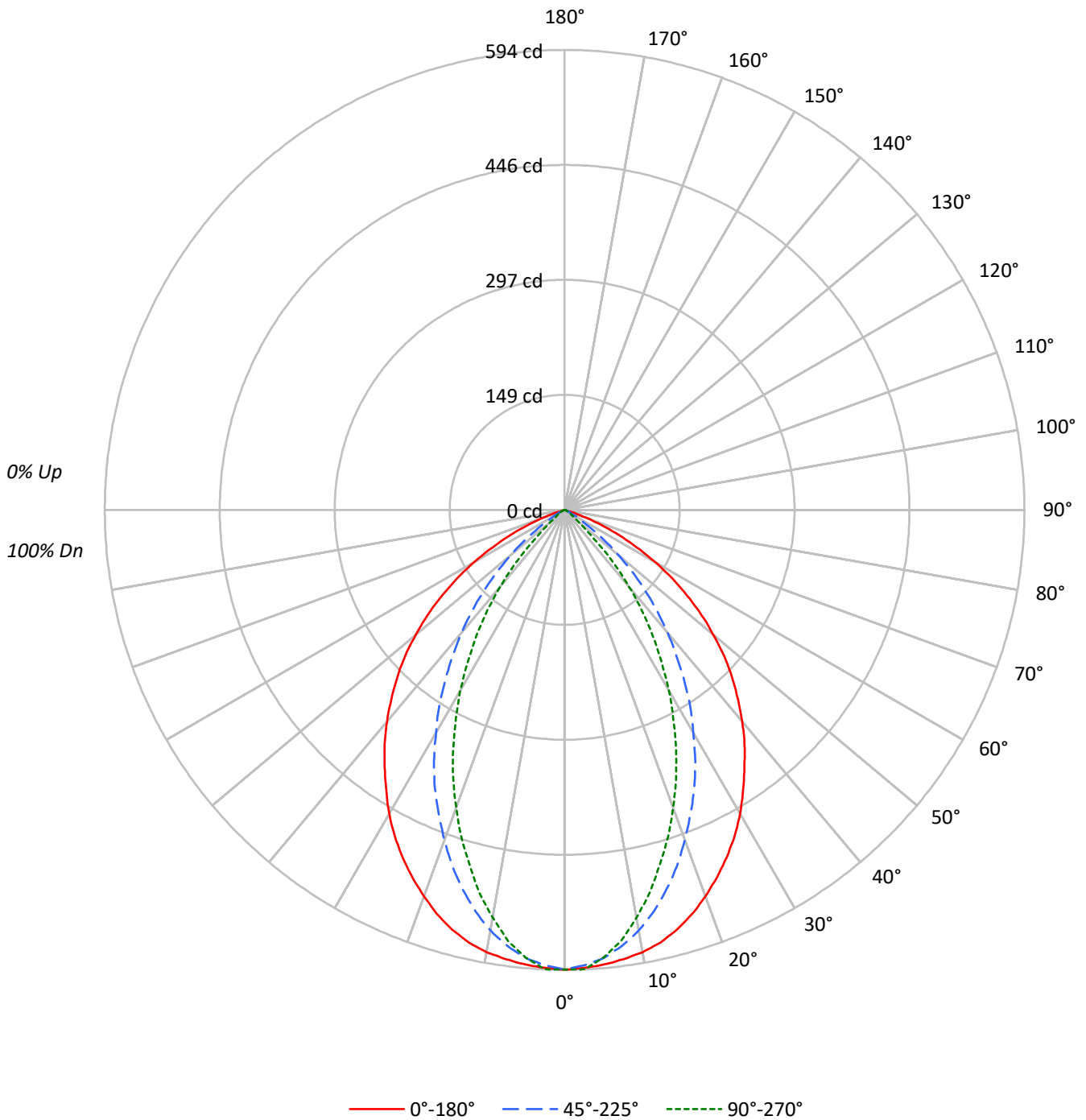
Lumens per Lamp: N/A
Luminaire Lumens: 775.4 lumens
Efficiency: N/A
Efficacy: 33.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	5113	5113	5113
5°	5096	5021	5014
10°	5072	4825	4675
15°	5003	4529	4230
20°	4868	4159	3751
25°	4704	3766	3237
30°	4505	3302	2679
35°	4257	2832	2084
40°	4013	2325	1457
45°	3720	1787	721
50°	3357	1207	241
55°	2899	619	168
60°	2320	222	119
65°	1591	122	53
70°	713	65	43
75°	0	30	30
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3720 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	7.1
10°-20°	143.7	18.5
20°-30°	186.1	24.0
30°-40°	176.8	22.8
40°-50°	125.2	16.1
50°-60°	64.3	8.3
60°-70°	22.5	2.9
70°-80°	2.0	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°	384.7	49.6
0°-40°	561.5	72.4
0°-60°	751.0	96.8
0°-90°	775.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	775.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	590	590	581	581	580	56
15°	561	544	508	484	474	158
25°	495	456	396	354	341	228
35°	405	346	269	217	198	253
45°	306	235	147	84	59	235
55°	193	127	41	12	11	173
65°	78	38	6	3	3	78
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°	593.8	593.8	593.8	593.8	593.8
2.5°	592.1	593.8	588.7	593.0	593.8
5°	589.5	590.4	580.9	580.9	580.1
7.5°	585.2	583.5	568.1	562.1	561.2
10°	580.1	574.1	551.8	538.9	534.6
12.5°	572.4	561.2	531.2	512.3	507.1
15°	561.2	544.0	508.0	484.0	474.5
17.5°	547.5	525.2	482.3	453.1	443.6
20°	531.2	502.9	453.9	421.3	409.3
22.5°	514.0	481.4	424.8	387.9	375.9
25°	495.1	456.5	396.4	354.4	340.7
27.5°	475.4	429.9	365.6	321.8	303.8
30°	453.1	403.3	332.1	286.6	269.4
32.5°	429.1	374.1	302.1	253.1	232.5
35°	405.0	345.8	269.4	217.1	198.2
37.5°	381.9	319.2	236.8	181.9	163.9
40°	357.0	290.0	206.8	150.2	129.6
42.5°	331.2	261.7	175.9	117.6	95.3
45°	305.5	235.1	146.7	84.1	59.2
47.5°	279.7	206.8	118.4	53.2	31.8
50°	250.6	179.3	90.1	28.3	18.0
52.5°	223.1	153.6	64.4	16.3	13.7
55°	193.1	127.0	41.2	12.0	11.2
57.5°	164.8	101.3	23.2	9.4	8.6
60°	134.7	78.1	12.9	7.7	6.9
62.5°	104.7	56.6	8.6	5.1	4.3
65°	78.1	37.8	6.0	3.4	2.6
67.5°	51.5	21.5	4.3	1.7	1.7
70°	28.3	10.3	2.6	1.7	1.7
72.5°	10.3	3.4	1.7	0.9	0.9
75°	0.0	0.9	0.9	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.9
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	14.20	15.46	14.57	15.77	16.08	0.00	0.00	0.00	0.00	0.00
	3H	14.48	15.58	14.86	15.91	16.28	0.00	0.00	0.00	0.00	0.00
	4H	14.40	15.43	14.81	15.78	16.16	0.00	0.00	0.00	0.00	0.00
	6H	14.32	15.25	14.73	15.63	16.02	0.00	0.00	0.00	0.00	0.00
	8H	14.27	15.16	14.70	15.55	15.95	0.00	0.00	0.00	0.00	0.00
	12H	14.22	15.07	14.66	15.45	15.88	0.00	0.00	0.00	0.00	0.00
4H	2H	13.97	15.00	14.38	15.35	15.74	0.00	0.00	0.00	0.00	0.00
	3H	14.26	15.09	14.67	15.49	15.89	0.00	0.00	0.00	0.00	0.00
	4H	14.16	14.90	14.60	15.32	15.77	0.00	0.00	0.00	0.00	0.00
	6H	14.08	14.71	14.54	15.16	15.62	0.00	0.00	0.00	0.00	0.00
	8H	14.02	14.60	14.49	15.05	15.52	0.00	0.00	0.00	0.00	0.00
	12H	13.96	14.48	14.45	14.97	15.44	0.00	0.00	0.00	0.00	0.00
8H	4H	14.02	14.60	14.49	15.05	15.53	0.00	0.00	0.00	0.00	0.00
	6H	13.91	14.38	14.41	14.88	15.37	0.00	0.00	0.00	0.00	0.00
	8H	13.84	14.27	14.37	14.79	15.28	0.00	0.00	0.00	0.00	0.00
	12H	13.79	14.17	14.31	14.66	15.24	0.00	0.00	0.00	0.00	0.00
12H	4H	13.96	14.48	14.45	14.97	15.44	0.00	0.00	0.00	0.00	0.00
	6H	13.84	14.27	14.37	14.79	15.28	0.00	0.00	0.00	0.00	0.00
	8H	13.79	14.17	14.31	14.66	15.24	0.00	0.00	0.00	0.00	0.00