

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: P1060991

Luminaire Tested: S124RDR-H795D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060991
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D927-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

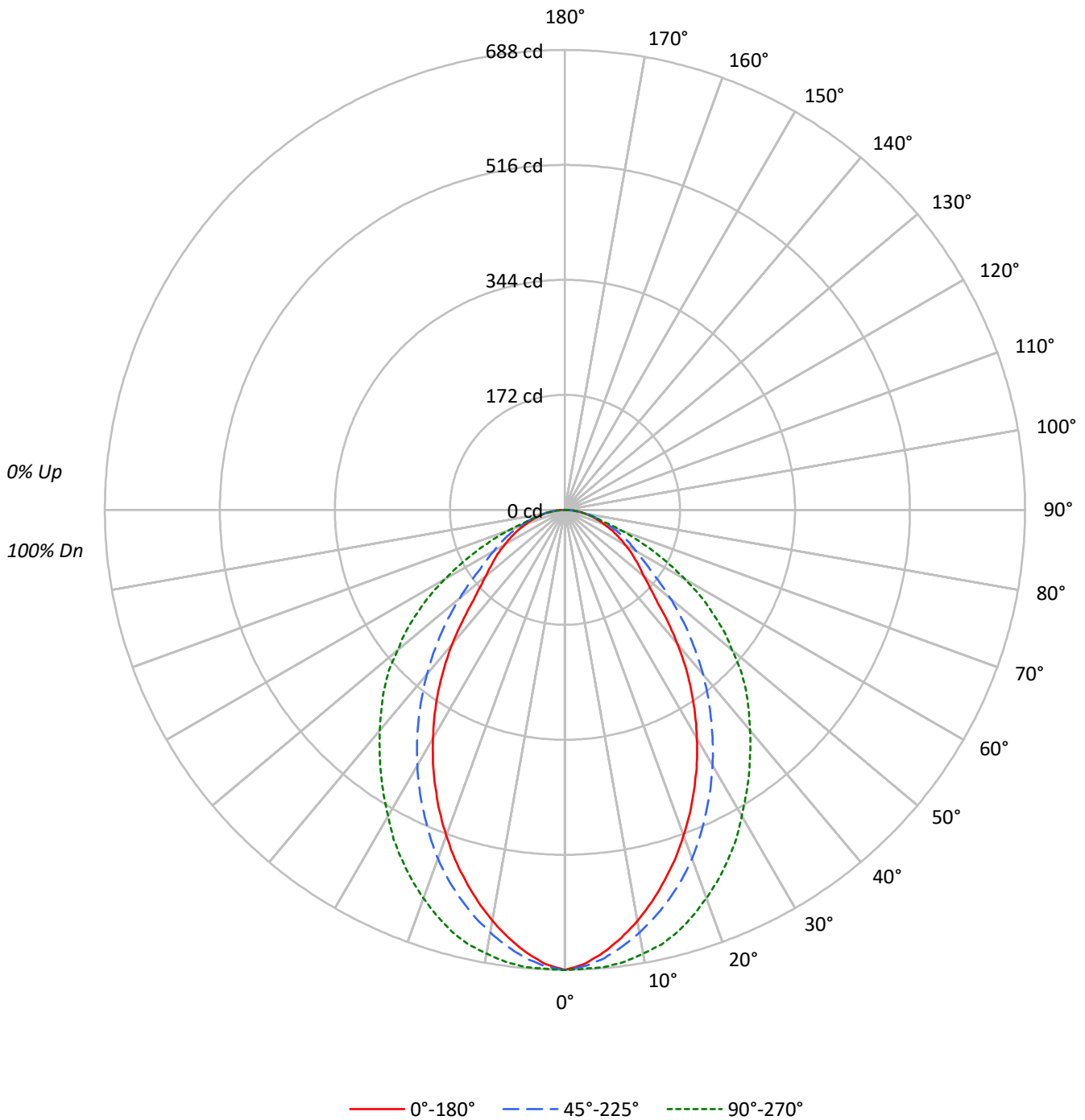
Lumens per Lamp: N/A
Luminaire Lumens: 1253.3 lumens
Efficiency: N/A
Efficacy: 53.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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										
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	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65														
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41	41	41	41	41	41	41														
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34	34	34	34	34	34	34														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31	31	31	31	31	31	31														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5928	5928	5928
5°	5745	5820	5932
10°	5458	5615	5893
15°	5121	5372	5822
20°	4754	5091	5667
25°	4354	4745	5485
30°	3925	4391	5259
35°	3460	4005	5045
40°	2944	3609	4843
45°	2391	3189	4667
50°	2068	2745	4370
55°	1917	2329	4052
60°	1789	2101	3555
65°	1677	1970	2954
70°	1564	1818	2236
75°	1487	1680	1607
80°	1393	1537	1359
85°	1284	1423	1067

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4667 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	5.1
10°-20°	170.8	13.6
20°-30°	233.3	18.6
30°-40°	244.4	19.5
40°-50°	211.5	16.9
50°-60°	159.0	12.7
60°-70°	102.5	8.2
70°-80°	52.6	4.2
80°-90°	15.7	1.3
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°	467.7	37.3
0°-40°	712.1	56.8
0°-60°	1082.6	86.4
0°-90°	1253.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1253.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	665	675	673	678	686	62
15°	574	589	603	630	653	161
25°	458	476	499	538	577	210
35°	329	348	381	432	480	205
45°	196	216	262	326	383	155
55°	128	132	155	222	270	115
65°	82	84	97	117	145	82
75°	45	50	50	50	48	47
85°	13	15	14	14	11	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.4	688.4	688.4	688.4	688.4
2.5°	679.8	688.4	683.4	684.8	687.0
5°	664.6	674.7	673.3	678.3	686.3
7.5°	645.8	656.7	658.8	670.4	681.9
10°	624.2	636.5	642.2	659.6	674.0
12.5°	600.4	613.4	623.5	645.1	666.1
15°	574.4	588.8	602.6	630.0	653.1
17.5°	547.7	562.1	580.2	610.5	636.5
20°	518.8	534.7	555.6	587.4	618.4
22.5°	489.3	505.9	528.2	562.9	598.9
25°	458.2	475.5	499.4	538.3	577.3
27.5°	427.2	444.5	471.2	512.3	554.9
30°	394.7	412.8	441.6	486.4	528.9
32.5°	362.3	381.7	411.3	458.9	504.4
35°	329.1	347.8	381.0	431.5	479.9
37.5°	295.9	315.3	350.7	404.8	455.3
40°	261.9	282.2	321.1	378.1	430.8
42.5°	228.0	249.7	290.8	350.7	406.3
45°	196.3	216.5	261.9	326.2	383.2
47.5°	172.5	186.2	233.1	302.4	357.2
50°	154.4	161.6	204.9	276.4	326.2
52.5°	140.7	145.8	179.0	248.2	300.9
55°	127.7	132.1	155.1	221.5	269.9
57.5°	116.2	118.3	137.1	195.6	240.3
60°	103.9	106.1	122.0	167.4	206.4
62.5°	93.1	94.5	109.7	140.7	175.4
65°	82.3	83.7	96.7	116.9	145.0
67.5°	72.2	74.3	84.4	95.3	115.5
70°	62.1	66.4	72.2	77.2	88.8
72.5°	53.4	57.7	60.6	62.1	62.8
75°	44.7	49.8	50.5	49.8	48.3
77.5°	36.1	40.4	40.4	39.0	37.5
80°	28.1	31.8	31.0	29.6	27.4
82.5°	20.9	23.1	22.4	20.9	18.8
85°	13.0	15.2	14.4	13.7	10.8
87.5°	6.5	8.7	7.9	7.2	4.3
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	12.61	14.10	12.98	14.41	14.73	16.39	17.87	16.76	18.19	18.50
	3H	14.27	15.60	14.65	15.93	16.29	17.50	18.83	17.88	19.16	19.52
	4H	14.94	16.19	15.34	16.53	16.91	17.79	19.04	18.19	19.39	19.77
	6H	15.45	16.60	15.87	16.97	17.36	17.99	19.14	18.40	19.51	19.90
	8H	15.63	16.73	16.06	17.12	17.52	18.04	19.14	18.47	19.53	19.93
	12H	15.76	16.81	16.19	17.19	17.62	18.07	19.12	18.50	19.50	19.93
4H	2H	13.40	14.64	13.80	14.99	15.37	16.55	17.79	16.95	18.14	18.52
	3H	15.26	16.29	15.67	16.69	17.09	17.86	18.89	18.27	19.29	19.70
	4H	16.07	17.00	16.50	17.41	17.85	18.27	19.20	18.70	19.61	20.05
	6H	16.72	17.52	17.17	17.97	18.43	18.58	19.39	19.04	19.84	20.30
	8H	16.94	17.70	17.41	18.14	18.61	18.68	19.43	19.14	19.88	20.34
	12H	17.11	17.79	17.60	18.27	18.74	18.74	19.41	19.22	19.89	20.36
8H	4H	16.42	17.17	16.88	17.62	18.08	18.40	19.16	18.87	19.60	20.07
	6H	17.21	17.83	17.71	18.33	18.80	18.81	19.44	19.31	19.93	20.41
	8H	17.53	18.09	18.05	18.60	19.09	18.96	19.52	19.48	20.03	20.52
	12H	17.80	18.29	18.31	18.78	19.35	19.09	19.58	19.60	20.08	20.64
12H	4H	16.45	17.12	16.93	17.60	18.07	18.41	19.08	18.89	19.56	20.03
	6H	17.27	17.83	17.79	18.34	18.83	18.84	19.40	19.35	19.91	20.39
	8H	17.66	18.15	18.17	18.65	19.21	19.04	19.53	19.55	20.02	20.59