

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: P1060953

Luminaire Tested: S124RDR-H795D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

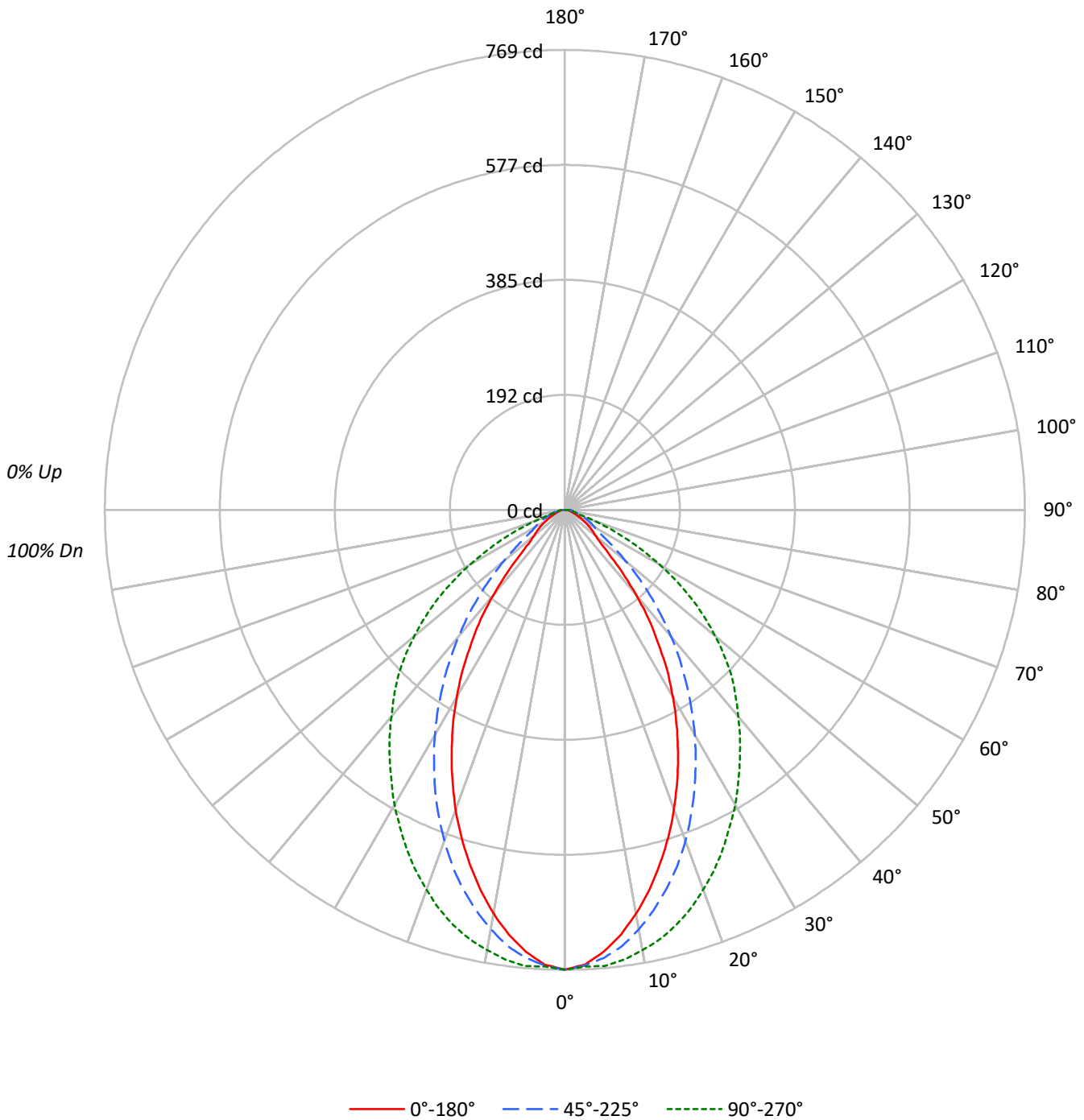
Lumens per Lamp: N/A
Luminaire Lumens: 1088.2 lumens
Efficiency: N/A
Efficacy: 46.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																												
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70																												
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63																												
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57																												
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51																												
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43																												
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6620	6620	6620
5°	6416	6498	6616
10°	5994	6227	6535
15°	5468	5851	6410
20°	4889	5400	6196
25°	4253	4881	5942
30°	3588	4322	5663
35°	2854	3720	5364
40°	2076	3099	5070
45°	1256	2448	4802
50°	898	1772	4395
55°	761	1200	3882
60°	622	977	3136
65°	491	876	2258
70°	410	735	1188
75°	373	685	599
80°	382	679	595
85°	514	1018	682

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4802 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	6.5
10°-20°	185.5	17.0
20°-30°	240.6	22.1
30°-40°	231.6	21.3
40°-50°	172.3	15.8
50°-60°	105.9	9.7
60°-70°	52.0	4.8
70°-80°	20.3	1.9
80°-90°	9.2	0.8
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°	496.8	45.7
0°-40°	728.4	66.9
0°-60°	1006.6	92.5
0°-90°	1088.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1088.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	742	753	752	758	765	69
15°	613	633	656	696	719	171
25°	448	472	514	578	625	205
35°	272	297	354	442	510	170
45°	103	128	201	310	394	86
55°	51	52	80	182	259	46
65°	24	26	43	69	111	25
75°	11	20	21	19	18	12
85°	5	9	10	10	7	5
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.8	768.8	768.8	768.8	768.8
2.5°	761.1	769.7	762.8	763.7	764.5
5°	742.2	753.4	751.7	758.5	765.4
7.5°	716.4	729.3	735.3	749.1	758.5
10°	685.5	700.1	712.1	734.5	747.4
12.5°	651.1	668.3	685.5	715.6	735.3
15°	613.3	633.1	656.3	695.8	719.0
17.5°	574.7	594.4	624.5	670.0	699.2
20°	533.5	554.9	589.3	640.0	676.1
22.5°	490.5	513.7	551.5	609.1	652.0
25°	447.6	471.6	513.7	578.1	625.4
27.5°	404.6	427.8	473.3	545.5	597.0
30°	360.8	384.8	434.7	510.3	569.5
32.5°	318.7	341.0	394.3	476.8	539.5
35°	271.5	297.2	353.9	442.4	510.3
37.5°	231.1	254.3	315.3	408.0	481.1
40°	184.7	210.5	275.7	374.5	451.0
42.5°	141.7	167.5	238.0	341.0	422.6
45°	103.1	128.0	201.0	310.1	394.3
47.5°	78.2	92.8	164.9	280.0	362.5
50°	67.0	71.3	132.3	247.4	328.1
52.5°	59.3	61.0	103.1	214.8	293.8
55°	50.7	52.4	79.9	182.1	258.6
57.5°	43.0	43.8	64.4	151.2	220.8
60°	36.1	36.9	56.7	121.1	182.1
62.5°	30.1	30.9	50.7	93.6	145.2
65°	24.1	25.8	43.0	68.7	110.8
67.5°	19.8	23.2	36.1	48.1	77.3
70°	16.3	22.3	29.2	33.5	47.2
72.5°	13.7	20.6	24.9	24.1	23.2
75°	11.2	19.8	20.6	18.9	18.0
77.5°	9.4	17.2	17.2	15.5	14.6
80°	7.7	13.7	13.7	13.7	12.0
82.5°	6.9	11.2	12.0	12.0	9.4
85°	5.2	9.4	10.3	10.3	6.9
87.5°	3.4	8.6	9.4	8.6	5.2
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	6.35	7.69	6.72	8.01	8.32	15.52	16.86	15.89	17.18	17.49
	3H	7.46	8.65	7.84	8.98	9.35	16.03	17.22	16.41	17.55	17.91
	4H	7.98	9.09	8.38	9.44	9.82	16.05	17.16	16.45	17.51	17.89
	6H	8.41	9.43	8.83	9.80	10.20	16.06	17.08	16.47	17.45	17.84
	8H	8.60	9.57	9.03	9.96	10.37	16.06	17.03	16.49	17.42	17.82
	12H	8.79	9.71	9.22	10.09	10.52	16.06	16.99	16.50	17.37	17.80
4H	2H	7.50	8.61	7.90	8.96	9.34	15.41	16.52	15.82	16.87	17.26
	3H	8.84	9.75	9.25	10.15	10.55	16.00	16.91	16.41	17.31	17.72
	4H	9.57	10.39	10.01	10.81	11.25	16.06	16.87	16.49	17.29	17.74
	6H	10.18	10.88	10.64	11.33	11.80	16.14	16.84	16.60	17.28	17.75
	8H	10.42	11.08	10.89	11.53	12.00	16.16	16.82	16.63	17.27	17.74
	12H	10.66	11.24	11.15	11.73	12.20	16.21	16.79	16.69	17.27	17.74
8H	4H	10.04	10.70	10.51	11.14	11.62	16.02	16.67	16.49	17.12	17.59
	6H	10.89	11.42	11.39	11.92	12.40	16.14	16.68	16.65	17.18	17.66
	8H	11.29	11.78	11.82	12.29	12.78	16.23	16.71	16.75	17.23	17.72
	12H	11.72	12.15	12.23	12.64	13.21	16.35	16.78	16.86	17.27	17.84
12H	4H	10.09	10.68	10.58	11.16	11.63	15.99	16.57	16.48	17.05	17.53
	6H	11.02	11.50	11.54	12.02	12.51	16.13	16.61	16.65	17.12	17.62
	8H	11.54	11.97	12.06	12.46	13.04	16.26	16.69	16.77	17.18	17.75