

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: P1060956

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060956
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D830-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

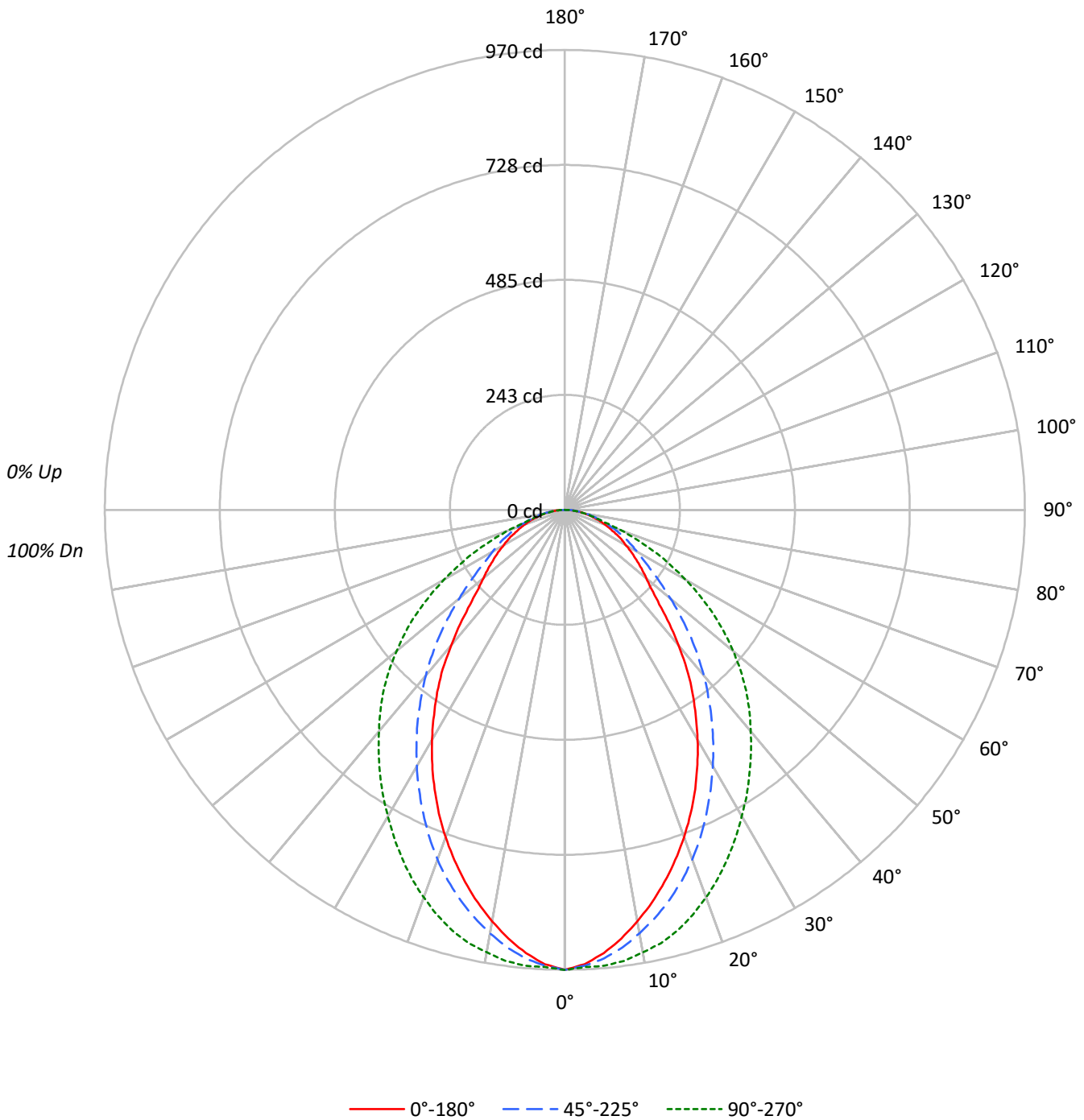
Lumens per Lamp: N/A
Luminaire Lumens: 1780.5 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65														
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	61	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	53	47	43	52	47	42	40	40	40	40	40	40	40														
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8355	8355	8355
5°	8113	8209	8343
10°	7703	7929	8289
15°	7242	7594	8191
20°	6735	7192	7972
25°	6176	6715	7710
30°	5567	6208	7420
35°	4928	5678	7140
40°	4190	5126	6854
45°	3431	4528	6588
50°	3002	3888	6200
55°	2759	3352	5736
60°	2559	3017	5058
65°	2396	2834	4234
70°	2248	2593	3177
75°	2113	2372	2316
80°	1959	2172	1959
85°	1778	2124	1699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6588 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	5.0
10°-20°	241.3	13.6
20°-30°	329.8	18.5
30°-40°	346.6	19.5
40°-50°	300.8	16.9
50°-60°	226.9	12.7
60°-70°	147.1	8.3
70°-80°	75.5	4.2
80°-90°	22.9	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°	660.8	37.1
0°-40°	1007.4	56.6
0°-60°	1535.1	86.2
0°-90°	1780.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1780.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	939	951	950	957	965	88
15°	812	832	852	890	919	228
25°	650	673	707	761	812	298
35°	469	495	540	612	679	292
45°	282	308	372	465	541	222
55°	184	189	223	317	382	165
65°	118	120	139	168	208	117
75°	64	71	71	72	70	67
85°	18	22	22	21	17	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	970.3	970.3	970.3	970.3	970.3
2.5°	959.2	971.2	962.6	964.3	965.2
5°	938.6	951.4	949.7	957.4	965.2
7.5°	911.9	927.4	930.8	946.3	959.2
10°	881.0	898.2	906.8	931.7	948.0
12.5°	848.4	865.6	881.0	912.8	936.0
15°	812.3	832.1	851.8	890.5	918.8
17.5°	774.5	795.2	820.1	862.1	895.6
20°	735.0	755.7	784.8	830.4	869.9
22.5°	693.0	716.2	747.1	796.0	842.4
25°	650.0	673.2	706.7	760.8	811.5
27.5°	605.4	629.4	665.5	725.6	779.7
30°	559.9	585.6	624.3	687.8	746.2
32.5°	513.5	541.0	582.2	650.0	713.6
35°	468.8	494.6	540.1	612.2	679.2
37.5°	422.5	448.2	497.2	575.3	644.9
40°	372.7	401.0	456.0	536.7	609.7
42.5°	326.3	354.6	413.9	499.8	576.2
45°	281.7	308.3	371.8	464.6	541.0
47.5°	247.3	266.2	329.7	430.2	503.2
50°	224.1	232.7	290.2	392.4	462.8
52.5°	203.5	210.4	254.2	354.6	423.3
55°	183.8	188.9	223.3	316.9	382.1
57.5°	166.6	169.2	195.8	279.1	337.5
60°	148.6	152.0	175.2	240.4	293.7
62.5°	134.0	135.7	157.1	203.5	249.9
65°	117.6	120.2	139.1	168.3	207.8
67.5°	103.0	107.3	120.2	137.4	164.0
70°	89.3	95.3	103.0	111.6	126.2
72.5°	76.4	83.3	87.6	91.0	88.4
75°	63.5	71.3	71.3	72.1	69.6
77.5°	51.5	58.4	57.5	56.7	53.2
80°	39.5	45.5	43.8	42.9	39.5
82.5°	29.2	33.5	31.8	30.9	26.6
85°	18.0	22.3	21.5	20.6	17.2
87.5°	8.6	12.9	12.0	11.2	7.7
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	15.37	14.25	15.68	15.99	17.62	19.10	17.98	19.42	19.73
	3H	15.55	16.88	15.92	17.21	17.57	18.74	20.08	19.12	20.40	20.77
	4H	16.21	17.46	16.61	17.81	18.19	19.04	20.29	19.44	20.64	21.02
	6H	16.72	17.87	17.13	18.24	18.63	19.24	20.39	19.65	20.76	21.15
	8H	16.90	17.99	17.32	18.38	18.78	19.29	20.39	19.72	20.78	21.18
	12H	17.01	18.06	17.45	18.45	18.88	19.33	20.38	19.76	20.76	21.19
4H	2H	14.67	15.92	15.07	16.27	16.65	17.78	19.03	18.18	19.38	19.76
	3H	16.54	17.58	16.95	17.98	18.38	19.11	20.15	19.52	20.55	20.95
	4H	17.35	18.28	17.78	18.69	19.13	19.53	20.46	19.96	20.88	21.32
	6H	17.99	18.80	18.45	19.24	19.70	19.85	20.66	20.31	21.10	21.56
	8H	18.21	18.97	18.68	19.41	19.88	19.94	20.70	20.41	21.15	21.61
	12H	18.38	19.05	18.86	19.53	20.00	20.02	20.69	20.50	21.17	21.64
8H	4H	17.69	18.45	18.16	18.90	19.36	19.66	20.42	20.13	20.86	21.33
	6H	18.48	19.11	18.98	19.60	20.08	20.08	20.71	20.58	21.20	21.68
	8H	18.80	19.36	19.32	19.87	20.36	20.24	20.80	20.75	21.31	21.80
	12H	19.07	19.56	19.58	20.05	20.62	20.38	20.87	20.89	21.37	21.93
12H	4H	17.72	18.40	18.21	18.88	19.35	19.67	20.34	20.15	20.82	21.29
	6H	18.55	19.11	19.06	19.62	20.11	20.10	20.66	20.62	21.18	21.66
	8H	18.93	19.43	19.44	19.92	20.49	20.31	20.81	20.82	21.30	21.87