

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: P1060955

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060955
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-H795D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

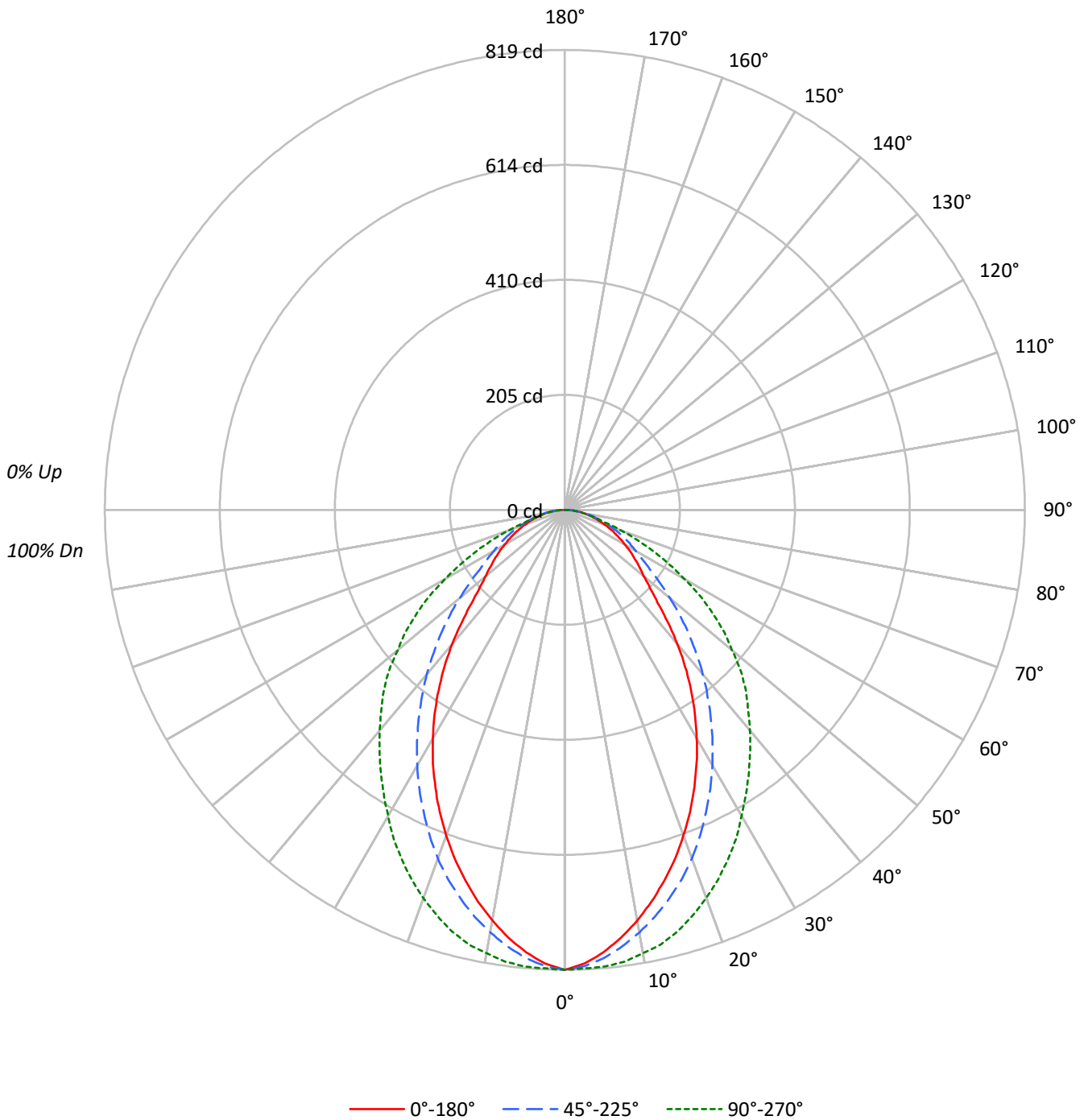
Lumens per Lamp: N/A
Luminaire Lumens: 1491.2 lumens
Efficiency: N/A
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7053	7053	7053
5°	6836	6925	7058
10°	6494	6681	7012
15°	6092	6391	6927
20°	5657	6058	6743
25°	5180	5645	6526
30°	4669	5225	6257
35°	4116	4765	6002
40°	3504	4295	5762
45°	2844	3796	5552
50°	2461	3266	5199
55°	2282	2771	4821
60°	2129	2499	4230
65°	1995	2345	3517
70°	1858	2163	2659
75°	1770	2000	1913
80°	1661	1830	1617
85°	1531	1699	1275

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5552 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	5.1
10°-20°	203.3	13.6
20°-30°	277.6	18.6
30°-40°	290.8	19.5
40°-50°	251.7	16.9
50°-60°	189.1	12.7
60°-70°	122.0	8.2
70°-80°	62.5	4.2
80°-90°	18.7	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°	556.4	37.3
0°-40°	847.2	56.8
0°-60°	1288.0	86.4
0°-90°	1491.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1491.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	819	819	819	819	819	
5°	791	803	801	807	816	74
15°	683	701	717	750	777	192
25°	545	566	594	640	687	250
35°	392	414	453	513	571	244
45°	234	258	312	388	456	184
55°	152	157	185	264	321	137
65°	98	100	115	139	173	97
75°	53	59	60	59	58	56
85°	16	18	17	16	13	18
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	819.1	819.1	819.1	819.1	819.1
2.5°	808.8	819.1	813.1	814.8	817.4
5°	790.8	802.8	801.1	807.1	816.5
7.5°	768.4	781.3	783.9	797.6	811.4
10°	742.7	757.3	764.1	784.7	801.9
12.5°	714.3	729.8	741.8	767.6	792.5
15°	683.4	700.6	716.9	749.5	777.0
17.5°	651.7	668.8	690.3	726.4	757.3
20°	617.3	636.2	661.1	698.9	735.8
22.5°	582.1	601.9	628.5	669.7	712.6
25°	545.2	565.8	594.1	640.5	686.9
27.5°	508.3	528.9	560.7	609.6	660.3
30°	469.6	491.1	525.5	578.7	629.3
32.5°	431.0	454.2	489.4	546.1	600.2
35°	391.5	413.8	453.3	513.4	571.0
37.5°	352.0	375.2	417.3	481.7	541.8
40°	311.7	335.7	382.1	449.9	512.6
42.5°	271.3	297.1	346.0	417.3	483.4
45°	233.5	257.6	311.7	388.1	455.9
47.5°	205.2	221.5	277.3	359.7	425.0
50°	183.7	192.3	243.8	328.8	388.1
52.5°	167.4	173.4	212.9	295.4	358.0
55°	152.0	157.1	184.6	263.6	321.1
57.5°	138.2	140.8	163.1	232.7	285.9
60°	123.6	126.2	145.1	199.2	245.6
62.5°	110.8	112.5	130.5	167.4	208.6
65°	97.9	99.6	115.1	139.1	172.6
67.5°	85.9	88.4	100.5	113.3	137.4
70°	73.8	79.0	85.9	91.9	105.6
72.5°	63.5	68.7	72.1	73.8	74.7
75°	53.2	59.2	60.1	59.2	57.5
77.5°	42.9	48.1	48.1	46.4	44.6
80°	33.5	37.8	36.9	35.2	32.6
82.5°	24.9	27.5	26.6	24.9	22.3
85°	15.5	18.0	17.2	16.3	12.9
87.5°	7.7	10.3	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	13.22	14.70	13.58	15.02	15.33	16.99	18.48	17.36	18.79	19.11
	3H	14.87	16.20	15.25	16.53	16.89	18.11	19.44	18.49	19.76	20.13
	4H	15.54	16.79	15.94	17.14	17.52	18.40	19.64	18.80	19.99	20.37
	6H	16.06	17.21	16.47	17.57	17.97	18.59	19.74	19.01	20.11	20.50
	8H	16.24	17.33	16.67	17.72	18.12	18.65	19.74	19.07	20.13	20.53
	12H	16.36	17.41	16.80	17.79	18.22	18.67	19.72	19.10	20.10	20.53
4H	2H	14.00	15.25	14.40	15.60	15.98	17.15	18.40	17.55	18.75	19.13
	3H	15.86	16.90	16.28	17.30	17.70	18.46	19.50	18.88	19.90	20.30
	4H	16.67	17.60	17.11	18.02	18.46	18.87	19.80	19.30	20.22	20.66
	6H	17.32	18.13	17.78	18.57	19.03	19.19	19.99	19.65	20.44	20.90
	8H	17.55	18.30	18.01	18.75	19.22	19.28	20.03	19.74	20.48	20.95
	12H	17.72	18.39	18.20	18.87	19.34	19.34	20.01	19.82	20.49	20.97
8H	4H	17.02	17.78	17.49	18.22	18.69	19.00	19.76	19.47	20.20	20.67
	6H	17.81	18.44	18.31	18.93	19.41	19.42	20.04	19.91	20.53	21.01
	8H	18.14	18.70	18.65	19.21	19.69	19.57	20.13	20.08	20.64	21.13
	12H	18.40	18.90	18.91	19.39	19.95	19.69	20.19	20.20	20.68	21.24
12H	4H	17.05	17.72	17.53	18.20	18.67	19.01	19.68	19.49	20.16	20.63
	6H	17.88	18.44	18.39	18.95	19.44	19.44	20.00	19.95	20.51	21.00
	8H	18.26	18.76	18.77	19.25	19.82	19.64	20.13	20.15	20.63	21.19