

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: P1060982

Luminaire Tested: S124RDR-H795D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060982
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-H795D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

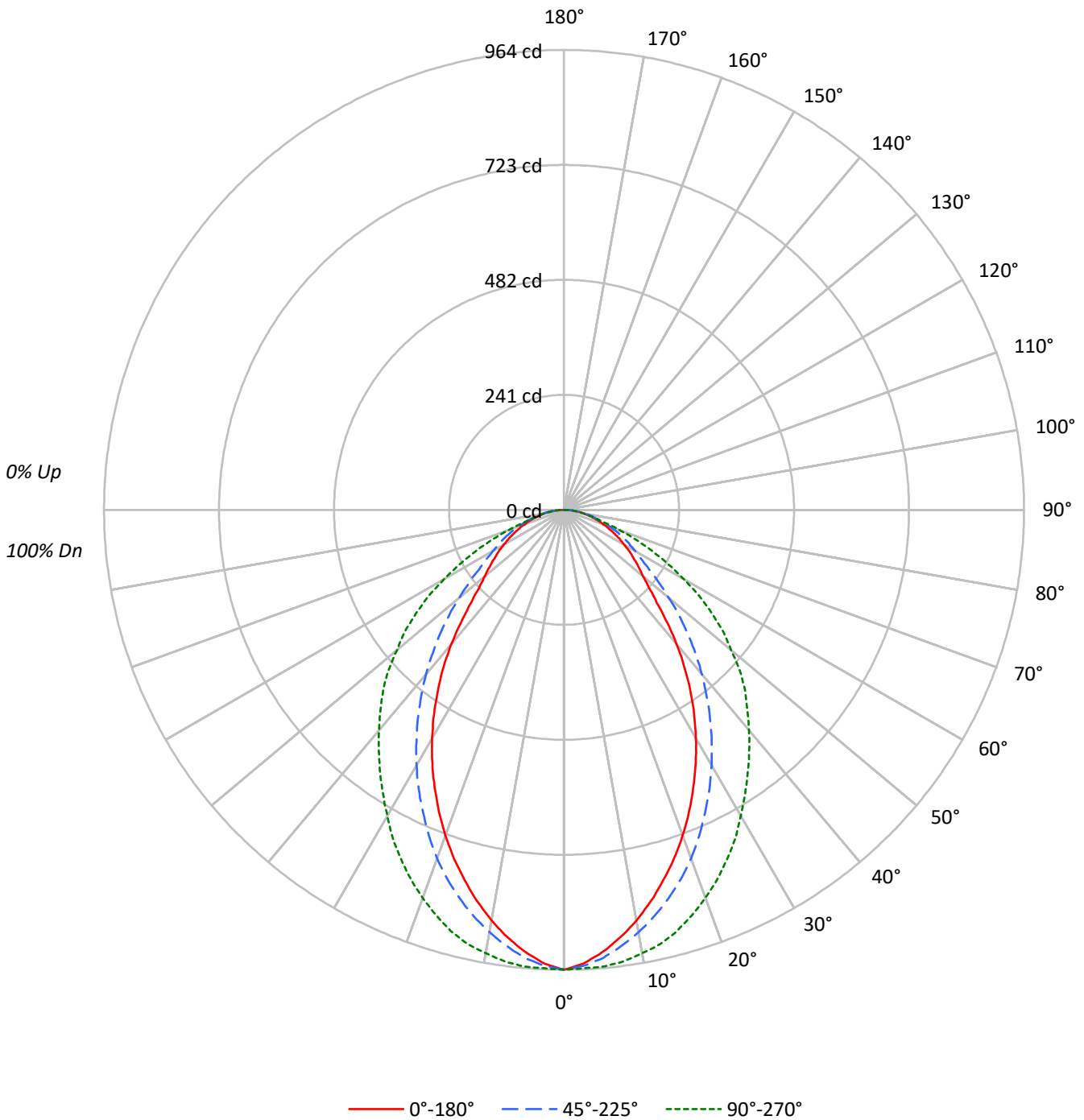
Lumens per Lamp: N/A
Luminaire Lumens: 1754.6 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	97	97	97	94	94	94	91	91	91	89	89	89	87													
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	84	84	84	82	82	82	81	81	81	79	79	79	77	77												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75	73	73	73	71	71	71	70	70	70	68	68	68	67	67												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	63	63	63	61	61	61	60	60	60	58	58	58	57	57												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	55	55	55	53	53	53	52	52	52	50	50	50	49	49												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50	50	50	48	48	48	46	46	46	45	45	45	43	43	43	42	42												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	44	44	44	42	42	42	41	41	41	39	39	39	38	38												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41	41	41	40	40	40	38	38	38	37	37	37	35	35	35	34	34												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37	37	37	36	36	36	34	34	34	33	33	33	31	31	31	30	30												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34	34	34	33	33	33	31	31	31	30	30	30	28	28	28	27	27												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31	31	31	30	30	30	28	28	28	27	27	27	25	25	25	24	24												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8299	8299	8299
5°	8042	8147	8304
10°	7640	7862	8250
15°	7168	7520	8150
20°	6656	7129	7934
25°	6095	6642	7679
30°	5495	6148	7363
35°	4843	5607	7062
40°	4122	5053	6779
45°	3347	4466	6532
50°	2896	3843	6117
55°	2684	3261	5672
60°	2506	2940	4976
65°	2347	2759	4138
70°	2188	2543	3130
75°	2083	2352	2252
80°	1954	2152	1904
85°	1798	1996	1502

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6532 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	5.1
10°-20°	239.2	13.6
20°-30°	326.6	18.6
30°-40°	342.1	19.5
40°-50°	296.1	16.9
50°-60°	222.5	12.7
60°-70°	143.5	8.2
70°-80°	73.6	4.2
80°-90°	22.0	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°	654.7	37.3
0°-40°	996.9	56.8
0°-60°	1515.5	86.4
0°-90°	1754.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1754.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	930	945	942	950	961	87
15°	804	824	844	882	914	225
25°	642	666	699	754	808	294
35°	461	487	533	604	672	287
45°	275	303	367	457	536	217
55°	179	185	217	310	378	161
65°	115	117	135	164	203	114
75°	63	70	71	70	68	66
85°	18	21	20	19	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	963.7	963.7	963.7	963.7	963.7
2.5°	951.6	963.7	956.7	958.7	961.7
5°	930.4	944.6	942.5	949.6	960.7
7.5°	904.1	919.3	922.3	938.5	954.7
10°	873.8	891.0	899.1	923.3	943.5
12.5°	840.5	858.7	872.8	903.1	932.4
15°	804.1	824.3	843.5	881.9	914.2
17.5°	766.8	787.0	812.2	854.6	891.0
20°	726.3	748.6	777.9	822.3	865.8
22.5°	684.9	708.2	739.5	788.0	838.5
25°	641.5	665.7	699.1	753.6	808.2
27.5°	598.0	622.3	659.7	717.3	776.9
30°	552.6	577.8	618.3	680.9	740.5
32.5°	507.1	534.4	575.8	642.5	706.1
35°	460.7	486.9	533.4	604.1	671.8
37.5°	414.2	441.5	491.0	566.7	637.4
40°	366.7	395.0	449.5	529.4	603.1
42.5°	319.2	349.5	407.1	491.0	568.8
45°	274.8	303.1	366.7	456.6	536.4
47.5°	241.4	260.6	326.3	423.3	500.1
50°	216.2	226.3	286.9	386.9	456.6
52.5°	197.0	204.1	250.5	347.5	421.3
55°	178.8	184.9	217.2	310.1	377.8
57.5°	162.6	165.7	191.9	273.8	336.4
60°	145.5	148.5	170.7	234.4	288.9
62.5°	130.3	132.3	153.6	197.0	245.5
65°	115.2	117.2	135.4	163.7	203.1
67.5°	101.0	104.1	118.2	133.3	161.6
70°	86.9	92.9	101.0	108.1	124.3
72.5°	74.8	80.8	84.9	86.9	87.9
75°	62.6	69.7	70.7	69.7	67.7
77.5°	50.5	56.6	56.6	54.6	52.5
80°	39.4	44.4	43.4	41.4	38.4
82.5°	29.3	32.3	31.3	29.3	26.3
85°	18.2	21.2	20.2	19.2	15.2
87.5°	9.1	12.1	11.1	10.1	6.1
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	13.79	15.27	14.15	15.58	15.90	17.56	19.04	17.92	19.36	19.67
	3H	15.44	16.77	15.82	17.10	17.46	18.67	20.00	19.05	20.33	20.69
	4H	16.11	17.36	16.51	17.70	18.08	18.96	20.21	19.36	20.56	20.94
	6H	16.62	17.77	17.04	18.14	18.53	19.16	20.31	19.57	20.68	21.07
	8H	16.80	17.90	17.23	18.29	18.69	19.21	20.31	19.64	20.70	21.10
	12H	16.93	17.98	17.36	18.36	18.79	19.24	20.29	19.67	20.67	21.10
4H	2H	14.57	15.81	14.97	16.16	16.54	17.72	18.96	18.12	19.31	19.69
	3H	16.43	17.46	16.84	17.86	18.26	19.03	20.06	19.44	20.46	20.86
	4H	17.24	18.17	17.67	18.58	19.02	19.44	20.37	19.87	20.78	21.22
	6H	17.88	18.69	18.34	19.13	19.60	19.75	20.56	20.21	21.00	21.46
	8H	18.11	18.87	18.58	19.31	19.78	19.85	20.60	20.31	21.04	21.51
	12H	18.28	18.96	18.77	19.44	19.91	19.91	20.58	20.39	21.06	21.53
8H	4H	17.59	18.34	18.05	18.79	19.25	19.57	20.32	20.03	20.77	21.24
	6H	18.38	19.00	18.88	19.49	19.97	19.98	20.60	20.48	21.10	21.57
	8H	18.70	19.26	19.22	19.77	20.26	20.13	20.69	20.65	21.20	21.69
	12H	18.96	19.46	19.48	19.95	20.52	20.26	20.75	20.77	21.24	21.81
12H	4H	17.62	18.29	18.10	18.77	19.24	19.57	20.25	20.06	20.73	21.20
	6H	18.44	19.00	18.96	19.51	20.00	20.00	20.56	20.52	21.07	21.56
	8H	18.83	19.32	19.34	19.81	20.38	20.21	20.70	20.72	21.19	21.76