

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: P1060979

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060979
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

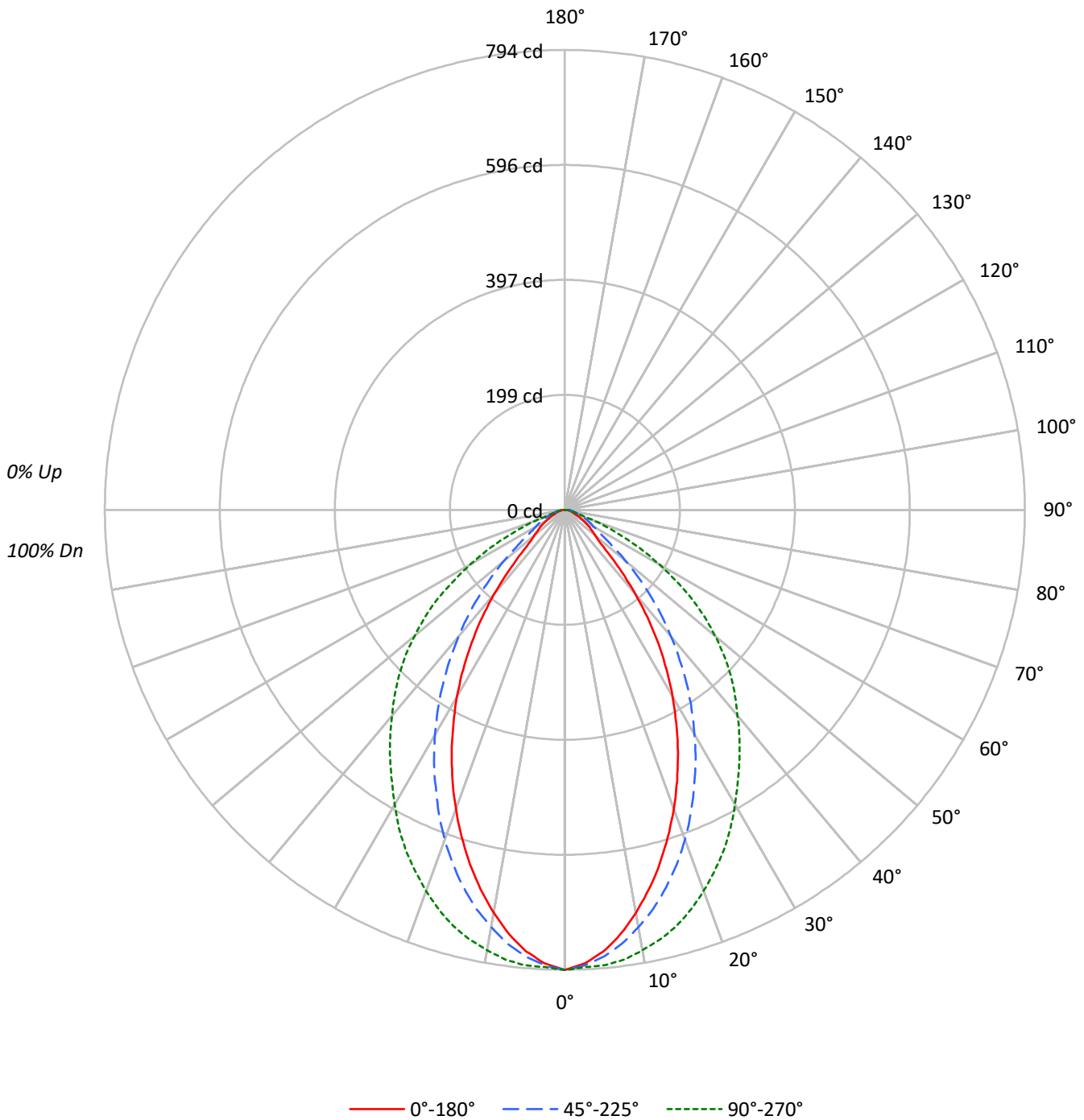
Lumens per Lamp: N/A
Luminaire Lumens: 1116.9 lumens
Efficiency: N/A
Efficacy: 47.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	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	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6840	6840	6840
5°	6613	6691	6822
10°	6177	6397	6751
15°	5640	6018	6631
20°	5037	5556	6417
25°	4388	5012	6164
30°	3698	4452	5838
35°	2953	3856	5524
40°	2125	3204	5214
45°	1280	2523	4935
50°	920	1827	4535
55°	773	1230	4020
60°	627	975	3238
65°	495	886	2327
70°	433	738	1246
75°	403	672	606
80°	402	699	550
85°	603	998	701

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4935 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	6.5
10°-20°	191.0	17.1
20°-30°	247.9	22.2
30°-40°	238.3	21.3
40°-50°	176.8	15.8
50°-60°	108.3	9.7
60°-70°	52.6	4.7
70°-80°	20.0	1.8
80°-90°	9.0	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°	511.9	45.8
0°-40°	750.2	67.2
0°-60°	1035.2	92.7
0°-90°	1116.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1116.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	765	776	774	781	789	71
15°	633	651	675	716	744	177
25°	462	485	528	595	649	211
35°	281	306	367	454	526	174
45°	105	131	207	316	405	87
55°	52	54	82	185	268	46
65°	24	26	44	69	114	25
75°	12	19	20	18	18	13
85°	6	10	10	9	7	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	794.3	794.3	794.3	794.3	794.3
2.5°	784.2	793.3	787.2	789.2	790.2
5°	765.0	776.1	774.1	781.2	789.2
7.5°	738.7	751.8	755.9	770.0	783.2
10°	706.4	722.5	731.6	754.9	772.1
12.5°	671.0	688.2	705.4	736.7	759.9
15°	632.6	650.8	675.0	715.5	743.8
17.5°	592.2	612.4	641.7	690.2	723.6
20°	549.7	571.0	606.3	659.9	700.3
22.5°	506.3	528.5	567.9	627.5	675.0
25°	461.8	485.1	527.5	595.2	648.8
27.5°	416.3	440.6	489.1	560.9	619.5
30°	371.9	395.1	447.7	525.5	587.1
32.5°	326.4	350.7	407.3	489.1	555.8
35°	280.9	306.2	366.8	453.7	525.5
37.5°	234.4	261.7	325.4	419.4	495.2
40°	189.0	215.2	285.0	384.0	463.8
42.5°	144.5	172.8	246.6	348.6	434.5
45°	105.1	131.4	207.2	316.3	405.2
47.5°	78.8	95.0	170.8	286.0	372.9
50°	68.7	71.7	136.4	252.6	338.5
52.5°	59.6	61.6	106.1	216.3	304.2
55°	51.5	53.6	81.9	184.9	267.8
57.5°	43.5	45.5	65.7	154.6	226.4
60°	36.4	38.4	56.6	123.3	188.0
62.5°	30.3	31.3	50.5	94.0	150.6
65°	24.3	26.3	43.5	68.7	114.2
67.5°	20.2	22.2	35.4	47.5	79.8
70°	17.2	22.2	29.3	33.3	49.5
72.5°	14.1	20.2	24.3	23.2	23.2
75°	12.1	19.2	20.2	18.2	18.2
77.5°	10.1	17.2	16.2	15.2	14.1
80°	8.1	14.1	14.1	12.1	11.1
82.5°	7.1	11.1	11.1	11.1	9.1
85°	6.1	10.1	10.1	9.1	7.1
87.5°	4.0	8.1	9.1	8.1	5.1
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	6.50	7.84	6.86	8.15	8.46	15.59	16.93	15.96	17.24	17.56
	3H	7.54	8.73	7.92	9.06	9.42	16.09	17.28	16.47	17.61	17.98
	4H	8.05	9.16	8.46	9.51	9.89	16.11	17.21	16.51	17.57	17.95
	6H	8.50	9.52	8.92	9.89	10.28	16.11	17.12	16.52	17.49	17.89
	8H	8.69	9.66	9.12	10.05	10.45	16.10	17.07	16.53	17.46	17.86
	12H	8.91	9.83	9.34	10.21	10.64	16.10	17.02	16.53	17.41	17.84
4H	2H	7.59	8.70	8.00	9.05	9.43	15.48	16.59	15.88	16.94	17.32
	3H	8.86	9.77	9.27	10.17	10.57	16.06	16.96	16.47	17.37	17.77
	4H	9.56	10.37	10.00	10.79	11.24	16.11	16.92	16.54	17.34	17.78
	6H	10.19	10.89	10.66	11.34	11.81	16.16	16.86	16.62	17.30	17.77
	8H	10.44	11.09	10.91	11.54	12.01	16.18	16.83	16.64	17.28	17.75
	12H	10.72	11.30	11.20	11.78	12.25	16.21	16.79	16.70	17.27	17.74
8H	4H	9.99	10.64	10.46	11.09	11.56	16.06	16.71	16.52	17.16	17.63
	6H	10.87	11.40	11.37	11.90	12.38	16.15	16.68	16.65	17.18	17.66
	8H	11.27	11.75	11.79	12.27	12.76	16.21	16.69	16.73	17.21	17.70
	12H	11.75	12.18	12.27	12.67	13.24	16.31	16.74	16.82	17.23	17.80
12H	4H	10.03	10.61	10.52	11.10	11.57	16.03	16.61	16.51	17.09	17.56
	6H	10.98	11.46	11.50	11.97	12.47	16.13	16.61	16.65	17.12	17.62
	8H	11.49	11.92	12.01	12.42	12.99	16.23	16.66	16.75	17.15	17.72