

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: P1060952

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060952
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-H795D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

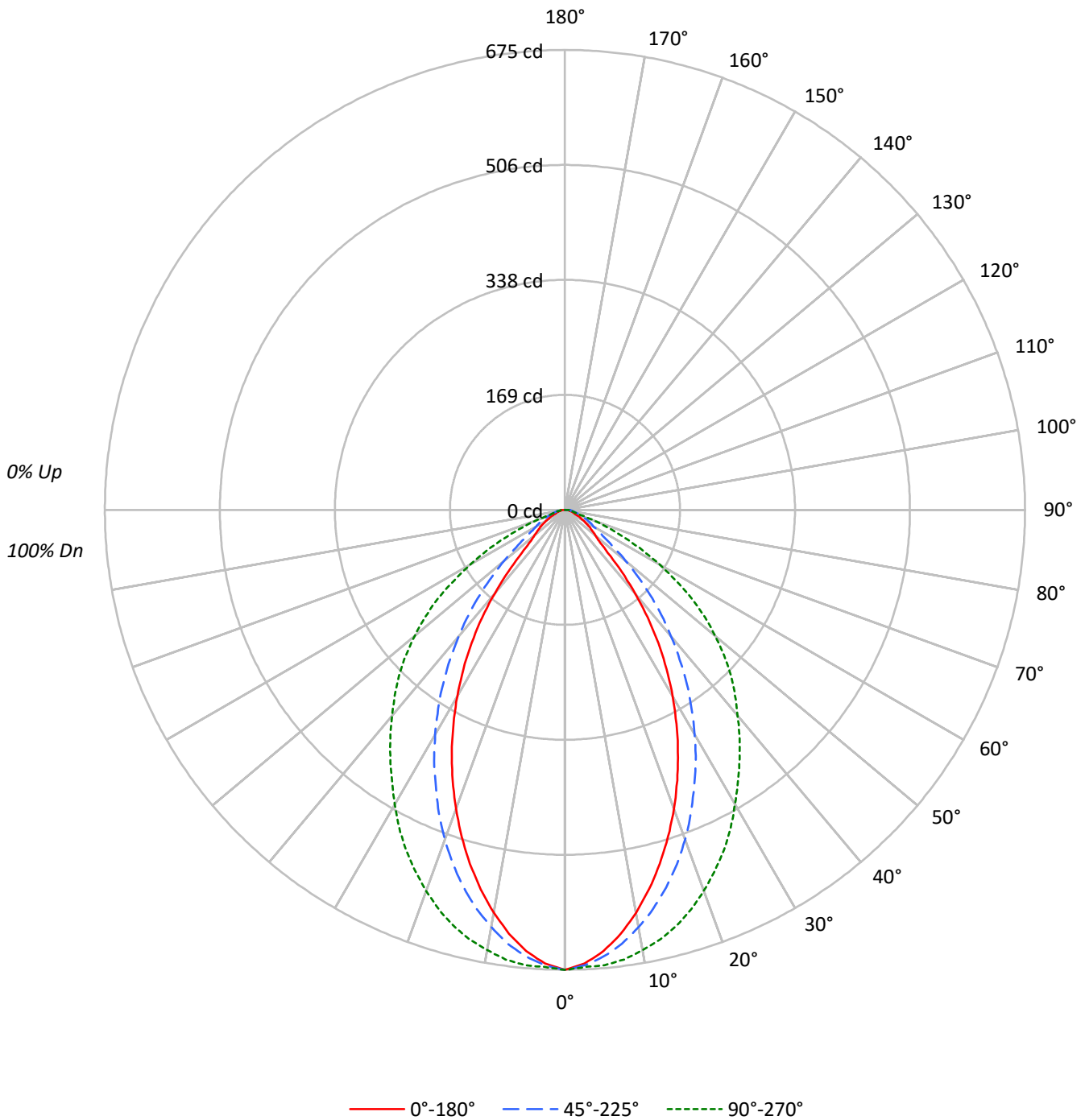
Lumens per Lamp: N/A
Luminaire Lumens: 949.2 lumens
Efficiency: N/A
Efficacy: 40.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5813	5813	5813
5°	5620	5687	5798
10°	5249	5437	5738
15°	4794	5114	5635
20°	4281	4722	5454
25°	3729	4259	5239
30°	3143	3783	4962
35°	2510	3278	4695
40°	1805	2723	4431
45°	1087	2145	4194
50°	782	1553	3854
55°	658	1045	3417
60°	532	828	2750
65°	420	752	1978
70°	368	627	1060
75°	343	572	516
80°	342	595	466
85°	514	850	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4194 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	6.5
10°-20°	162.4	17.1
20°-30°	210.7	22.2
30°-40°	202.5	21.3
40°-50°	150.3	15.8
50°-60°	92.0	9.7
60°-70°	44.7	4.7
70°-80°	17.0	1.8
80°-90°	7.6	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°	435.0	45.8
0°-40°	637.6	67.2
0°-60°	879.9	92.7
0°-90°	949.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	949.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	650	660	658	664	671	60
15°	538	553	574	608	632	150
25°	392	412	448	506	551	179
35°	239	260	312	386	447	148
45°	89	112	176	269	344	74
55°	44	46	70	157	228	39
65°	21	22	37	58	97	21
75°	10	16	17	16	16	11
85°	5	9	9	8	6	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	675.1	675.1	675.1	675.1	675.1
2.5°	666.5	674.2	669.1	670.8	671.6
5°	650.2	659.6	657.9	663.9	670.8
7.5°	627.8	639.0	642.4	654.5	665.6
10°	600.3	614.1	621.8	641.6	656.2
12.5°	570.3	584.9	599.5	626.1	645.9
15°	537.7	553.1	573.7	608.1	632.1
17.5°	503.3	520.5	545.4	586.6	614.9
20°	467.2	485.3	515.3	560.8	595.2
22.5°	430.3	449.2	482.7	533.4	573.7
25°	392.5	412.3	448.3	505.9	551.4
27.5°	353.9	374.5	415.7	476.7	526.5
30°	316.1	335.8	380.5	446.6	499.0
32.5°	277.4	298.0	346.1	415.7	472.4
35°	238.8	260.2	311.8	385.6	446.6
37.5°	199.3	222.4	276.6	356.4	420.8
40°	160.6	182.9	242.2	326.4	394.2
42.5°	122.8	146.9	209.6	296.3	369.3
45°	89.3	111.7	176.1	268.8	344.4
47.5°	67.0	80.7	145.1	243.1	316.9
50°	58.4	61.0	115.9	214.7	287.7
52.5°	50.7	52.4	90.2	183.8	258.5
55°	43.8	45.5	69.6	157.2	227.6
57.5°	36.9	38.6	55.8	131.4	192.4
60°	30.9	32.6	48.1	104.8	159.7
62.5°	25.8	26.6	42.9	79.9	128.0
65°	20.6	22.3	36.9	58.4	97.1
67.5°	17.2	18.9	30.1	40.4	67.9
70°	14.6	18.9	24.9	28.3	42.1
72.5°	12.0	17.2	20.6	19.8	19.8
75°	10.3	16.3	17.2	15.5	15.5
77.5°	8.6	14.6	13.7	12.9	12.0
80°	6.9	12.0	12.0	10.3	9.4
82.5°	6.0	9.4	9.4	9.4	7.7
85°	5.2	8.6	8.6	7.7	6.0
87.5°	3.4	6.9	7.7	6.9	4.3
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	5.92	7.26	6.29	7.57	7.89	15.03	16.37	15.39	16.68	16.99
	3H	6.97	8.16	7.35	8.49	8.85	15.53	16.72	15.91	17.05	17.41
	4H	7.48	8.59	7.89	8.94	9.32	15.54	16.65	15.95	17.00	17.38
	6H	7.94	8.95	8.35	9.32	9.72	15.54	16.56	15.96	16.93	17.32
	8H	8.13	9.09	8.56	9.48	9.88	15.54	16.50	15.97	16.89	17.30
	12H	8.34	9.26	8.77	9.65	10.08	15.54	16.46	15.97	16.84	17.27
4H	2H	7.02	8.12	7.42	8.47	8.86	14.92	16.02	15.32	16.37	16.76
	3H	8.29	9.20	8.70	9.60	10.00	15.50	16.40	15.91	16.80	17.21
	4H	8.99	9.80	9.43	10.22	10.67	15.54	16.35	15.98	16.77	17.21
	6H	9.63	10.33	10.09	10.77	11.24	15.60	16.29	16.06	16.74	17.21
	8H	9.87	10.52	10.34	10.97	11.44	15.61	16.26	16.08	16.71	17.18
	12H	10.15	10.73	10.63	11.21	11.68	15.64	16.22	16.13	16.70	17.18
8H	4H	9.42	10.07	9.89	10.52	10.99	15.49	16.15	15.96	16.59	17.06
	6H	10.30	10.83	10.80	11.33	11.81	15.59	16.12	16.09	16.62	17.10
	8H	10.70	11.18	11.22	11.70	12.19	15.64	16.13	16.17	16.64	17.13
	12H	11.18	11.61	11.70	12.10	12.67	15.74	16.17	16.26	16.66	17.23
12H	4H	9.46	10.04	9.95	10.52	11.00	15.46	16.04	15.95	16.52	17.00
	6H	10.41	10.89	10.93	11.41	11.90	15.56	16.04	16.08	16.56	17.05
	8H	10.92	11.35	11.44	11.84	12.42	15.67	16.09	16.18	16.59	17.16