

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: P1060874

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060874
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-H575D830-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

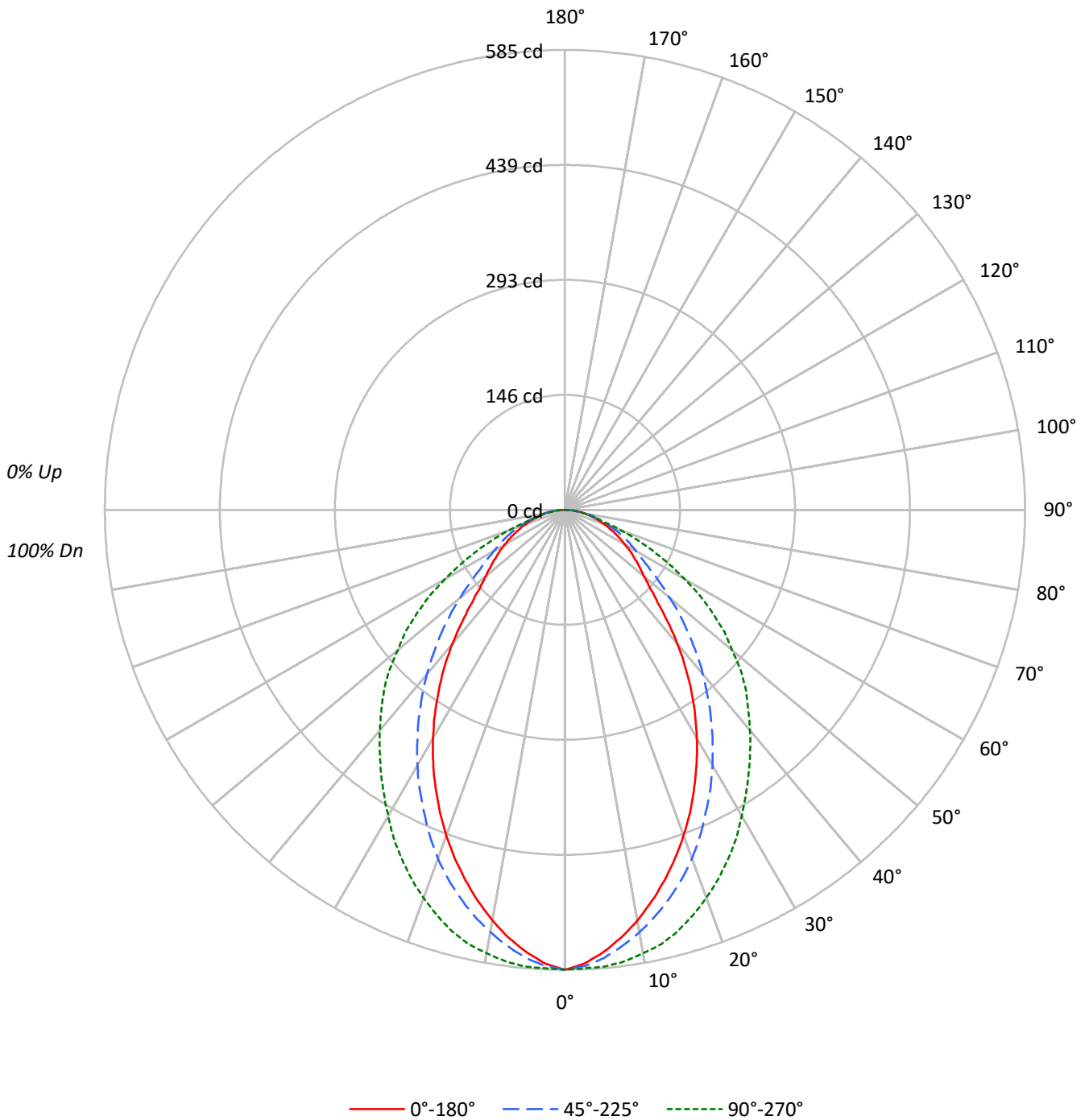
Lumens per Lamp: N/A
Luminaire Lumens: 1064.7 lumens
Efficiency: N/A
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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

TEST NUMBER: P1060874

CATALOG NUMBER: S124RDR-H575D830-X4F0-XX-UDD-WVL-S

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																				
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°	5037	5037	5037
5°	4880	4944	5039
10°	4637	4771	5007
15°	4350	4564	4946
20°	4039	4326	4815
25°	3699	4030	4659
30°	3334	3731	4469
35°	2939	3403	4286
40°	2501	3067	4114
45°	2031	2710	3964
50°	1758	2332	3712
55°	1629	1979	3442
60°	1521	1784	3019
65°	1424	1675	2510
70°	1327	1543	1898
75°	1264	1427	1367
80°	1185	1309	1155
85°	1087	1215	909

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3964 cd/sqm

TEST NUMBER: P1060874

CATALOG NUMBER: S124RDR-H575D830-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	5.1
10°-20°	145.1	13.6
20°-30°	198.2	18.6
30°-40°	207.6	19.5
40°-50°	179.7	16.9
50°-60°	135.0	12.7
60°-70°	87.1	8.2
70°-80°	44.6	4.2
80°-90°	13.3	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°	397.3	37.3
0°-40°	604.9	56.8
0°-60°	919.7	86.4
0°-90°	1064.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1064.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	565	573	572	576	583	53
15°	488	500	512	535	555	137
25°	389	404	424	457	490	179
35°	280	296	324	367	408	174
45°	167	184	222	277	326	131
55°	108	112	132	188	229	98
65°	70	71	82	99	123	69
75°	38	42	43	42	41	40
85°	11	13	12	12	9	13
90°	0	0	0	0	0	

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CATALOG NUMBER: S124RDR-H575D830-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.9	584.9	584.9	584.9	584.9
2.5°	577.5	584.9	580.6	581.8	583.6
5°	564.6	573.2	572.0	576.3	583.0
7.5°	548.7	557.9	559.7	569.5	579.3
10°	530.3	540.7	545.6	560.3	572.6
12.5°	510.1	521.1	529.7	548.1	565.9
15°	488.0	500.3	511.9	535.2	554.8
17.5°	465.3	477.6	492.9	518.6	540.7
20°	440.8	454.3	472.1	499.0	525.4
22.5°	415.7	429.8	448.8	478.2	508.8
25°	389.3	404.0	424.2	457.3	490.4
27.5°	362.9	377.6	400.3	435.3	471.4
30°	335.3	350.7	375.2	413.2	449.4
32.5°	307.8	324.3	349.4	389.9	428.5
35°	279.6	295.5	323.7	366.6	407.7
37.5°	251.4	267.9	297.9	343.9	386.8
40°	222.5	239.7	272.8	321.2	366.0
42.5°	193.7	212.1	247.1	297.9	345.2
45°	166.8	183.9	222.5	277.1	325.5
47.5°	146.5	158.2	198.0	256.9	303.5
50°	131.2	137.3	174.1	234.8	277.1
52.5°	119.5	123.8	152.0	210.9	255.6
55°	108.5	112.2	131.8	188.2	229.3
57.5°	98.7	100.5	116.5	166.1	204.1
60°	88.3	90.1	103.6	142.2	175.3
62.5°	79.1	80.3	93.2	119.5	149.0
65°	69.9	71.1	82.2	99.3	123.2
67.5°	61.3	63.1	71.7	80.9	98.1
70°	52.7	56.4	61.3	65.6	75.4
72.5°	45.4	49.0	51.5	52.7	53.3
75°	38.0	42.3	42.9	42.3	41.1
77.5°	30.7	34.3	34.3	33.1	31.9
80°	23.9	27.0	26.4	25.1	23.3
82.5°	17.8	19.6	19.0	17.8	15.9
85°	11.0	12.9	12.3	11.6	9.2
87.5°	5.5	7.4	6.7	6.1	3.7
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	12.05	13.53	12.41	13.84	14.16	15.82	17.31	16.19	17.62	17.93
	3H	13.70	15.03	14.08	15.36	15.72	16.94	18.26	17.31	18.59	18.96
	4H	14.37	15.62	14.77	15.97	16.35	17.23	18.47	17.63	18.82	19.20
	6H	14.89	16.04	15.30	16.40	16.80	17.42	18.57	17.84	18.94	19.33
	8H	15.07	16.16	15.50	16.55	16.95	17.48	18.57	17.90	18.96	19.36
	12H	15.19	16.24	15.62	16.62	17.05	17.50	18.55	17.93	18.93	19.36
4H	2H	12.83	14.08	13.23	14.43	14.81	15.98	17.23	16.38	17.58	17.95
	3H	14.69	15.72	15.10	16.13	16.53	17.29	18.33	17.70	18.73	19.13
	4H	15.50	16.43	15.93	16.85	17.29	17.70	18.63	18.13	19.05	19.49
	6H	16.15	16.96	16.61	17.40	17.86	18.02	18.82	18.47	19.27	19.73
	8H	16.38	17.13	16.84	17.58	18.04	18.11	18.86	18.57	19.31	19.78
	12H	16.55	17.22	17.03	17.70	18.17	18.17	18.84	18.65	19.32	19.79
8H	4H	15.85	16.60	16.31	17.05	17.52	17.83	18.59	18.30	19.03	19.50
	6H	16.64	17.27	17.14	17.76	18.24	18.25	18.87	18.74	19.36	19.84
	8H	16.97	17.52	17.48	18.04	18.52	18.40	18.96	18.91	19.47	19.96
	12H	17.23	17.72	17.74	18.22	18.78	18.52	19.01	19.03	19.51	20.07
12H	4H	15.88	16.55	16.36	17.03	17.50	17.84	18.51	18.32	18.99	19.46
	6H	16.71	17.27	17.22	17.78	18.27	18.27	18.83	18.78	19.34	19.83
	8H	17.09	17.59	17.60	18.08	18.65	18.47	18.96	18.98	19.46	20.02