

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: P1060875

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060875
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
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-W
Description: DEFINE 4 WHITE 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

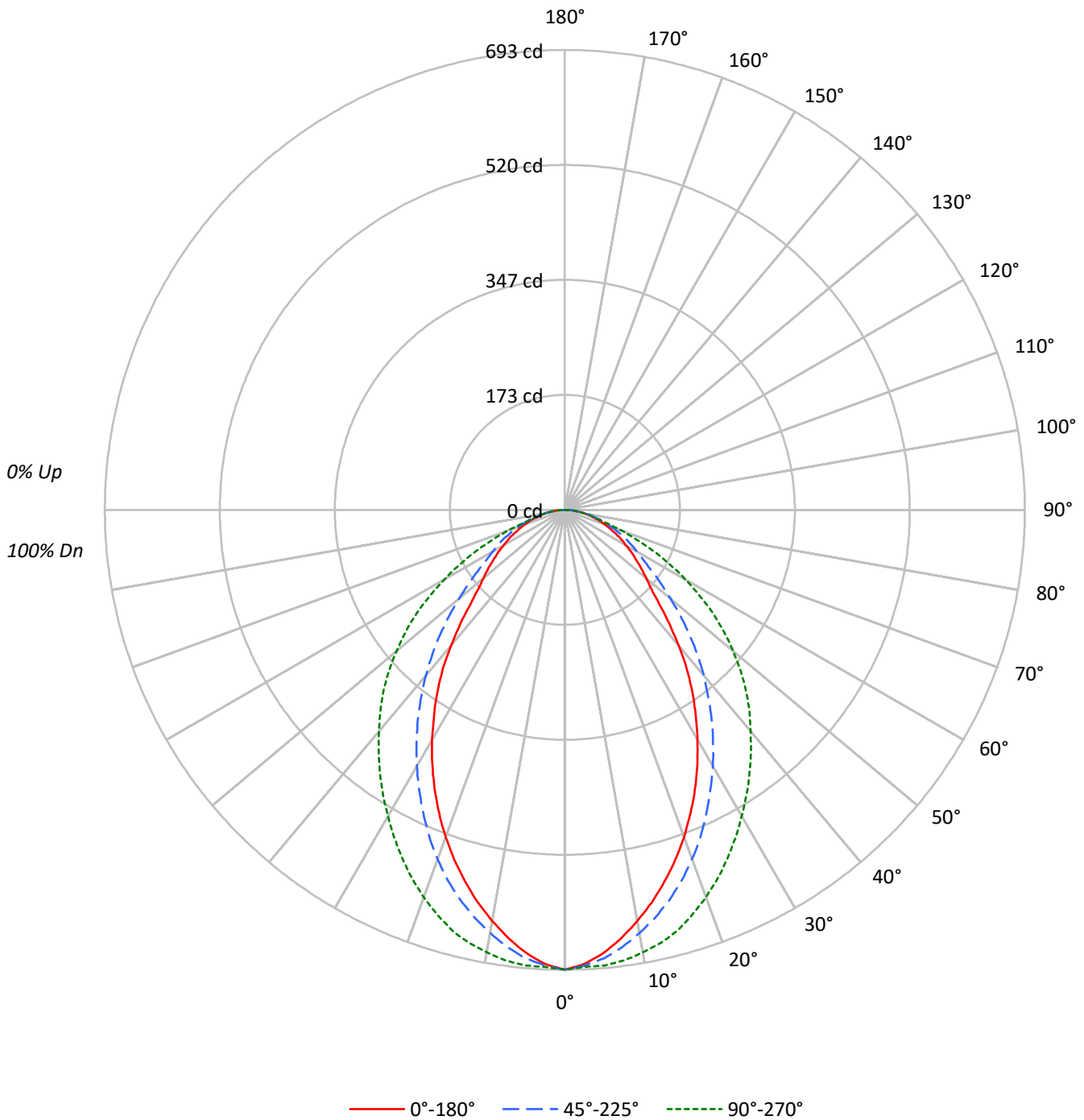
Lumens per Lamp: N/A
Luminaire Lumens: 1271.3 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

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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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65														
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40														
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5966	5966	5966
5°	5793	5862	5957
10°	5501	5662	5919
15°	5171	5422	5849
20°	4809	5135	5692
25°	4410	4794	5505
30°	3975	4433	5298
35°	3520	4055	5098
40°	2991	3660	4893
45°	2449	3233	4704
50°	2143	2776	4428
55°	1970	2393	4096
60°	1827	2155	3612
65°	1712	2023	3024
70°	1606	1853	2268
75°	1510	1693	1654
80°	1398	1552	1398
85°	1275	1512	1215

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4704 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	5.0
10°-20°	172.3	13.6
20°-30°	235.5	18.5
30°-40°	247.5	19.5
40°-50°	214.8	16.9
50°-60°	162.0	12.7
60°-70°	105.0	8.3
70°-80°	53.9	4.2
80°-90°	16.3	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°	471.8	37.1
0°-40°	719.3	56.6
0°-60°	1096.1	86.2
0°-90°	1271.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1271.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	670	679	678	684	689	63
15°	580	594	608	636	656	163
25°	464	481	505	543	579	213
35°	335	353	386	437	485	208
45°	201	220	266	332	386	158
55°	131	135	159	226	273	118
65°	84	86	99	120	148	84
75°	45	51	51	52	50	48
85°	13	16	15	15	12	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	692.8	692.8	692.8	692.8	692.8
2.5°	684.9	693.5	687.3	688.6	689.2
5°	670.2	679.4	678.1	683.6	689.2
7.5°	651.2	662.2	664.6	675.7	684.9
10°	629.1	641.3	647.5	665.3	676.9
12.5°	605.8	618.0	629.1	651.8	668.3
15°	580.0	594.1	608.2	635.8	656.1
17.5°	553.1	567.8	585.5	615.6	639.5
20°	524.8	539.6	560.4	592.9	621.1
22.5°	494.8	511.4	533.4	568.4	601.5
25°	464.1	480.7	504.6	543.2	579.4
27.5°	432.3	449.4	475.2	518.1	556.7
30°	399.8	418.2	445.8	491.1	532.8
32.5°	366.7	386.3	415.7	464.1	509.5
35°	334.8	353.2	385.7	437.2	485.0
37.5°	301.7	320.1	355.0	410.8	460.5
40°	266.1	286.3	325.6	383.2	435.3
42.5°	233.0	253.2	295.5	356.8	411.4
45°	201.1	220.1	265.5	331.7	386.3
47.5°	176.6	190.1	235.4	307.2	359.3
50°	160.0	166.2	207.2	280.2	330.5
52.5°	145.3	150.2	181.5	253.2	302.3
55°	131.2	134.9	159.4	226.2	272.8
57.5°	118.9	120.8	139.8	199.3	241.0
60°	106.1	108.5	125.1	171.7	209.7
62.5°	95.6	96.9	112.2	145.3	178.4
65°	84.0	85.8	99.3	120.2	148.4
67.5°	73.6	76.6	85.8	98.1	117.1
70°	63.8	68.1	73.6	79.7	90.1
72.5°	54.6	59.5	62.5	65.0	63.2
75°	45.4	50.9	50.9	51.5	49.7
77.5°	36.8	41.7	41.1	40.5	38.0
80°	28.2	32.5	31.3	30.7	28.2
82.5°	20.8	23.9	22.7	22.1	19.0
85°	12.9	15.9	15.3	14.7	12.3
87.5°	6.1	9.2	8.6	8.0	5.5
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	12.71	14.20	13.07	14.51	14.82	16.45	17.93	16.81	18.25	18.56
	3H	14.38	15.71	14.75	16.04	16.40	17.57	18.91	17.95	19.23	19.60
	4H	15.04	16.29	15.44	16.64	17.02	17.87	19.12	18.27	19.47	19.85
	6H	15.55	16.70	15.96	17.07	17.46	18.07	19.22	18.48	19.59	19.98
	8H	15.73	16.82	16.15	17.21	17.61	18.12	19.22	18.55	19.61	20.01
	12H	15.85	16.90	16.28	17.28	17.71	18.16	19.21	18.59	19.59	20.02
4H	2H	13.50	14.75	13.90	15.10	15.48	16.61	17.86	17.01	18.21	18.59
	3H	15.37	16.41	15.78	16.81	17.21	17.94	18.98	18.35	19.38	19.78
	4H	16.18	17.11	16.61	17.53	17.96	18.36	19.29	18.79	19.71	20.15
	6H	16.82	17.63	17.28	18.07	18.53	18.68	19.49	19.14	19.93	20.40
	8H	17.04	17.80	17.51	18.24	18.71	18.78	19.53	19.24	19.98	20.45
	12H	17.21	17.88	17.69	18.36	18.83	18.85	19.52	19.33	20.00	20.47
8H	4H	16.53	17.28	16.99	17.73	18.19	18.49	19.25	18.96	19.69	20.16
	6H	17.32	17.94	17.81	18.43	18.91	18.91	19.54	19.41	20.03	20.51
	8H	17.63	18.19	18.15	18.70	19.19	19.07	19.63	19.58	20.14	20.63
	12H	17.90	18.39	18.41	18.88	19.45	19.21	19.71	19.72	20.20	20.76
12H	4H	16.56	17.23	17.04	17.71	18.18	18.50	19.17	18.98	19.65	20.12
	6H	17.38	17.94	17.89	18.45	18.94	18.93	19.50	19.45	20.01	20.50
	8H	17.76	18.26	18.27	18.75	19.32	19.14	19.64	19.65	20.13	20.70