

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: P1060917

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060917
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D930-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

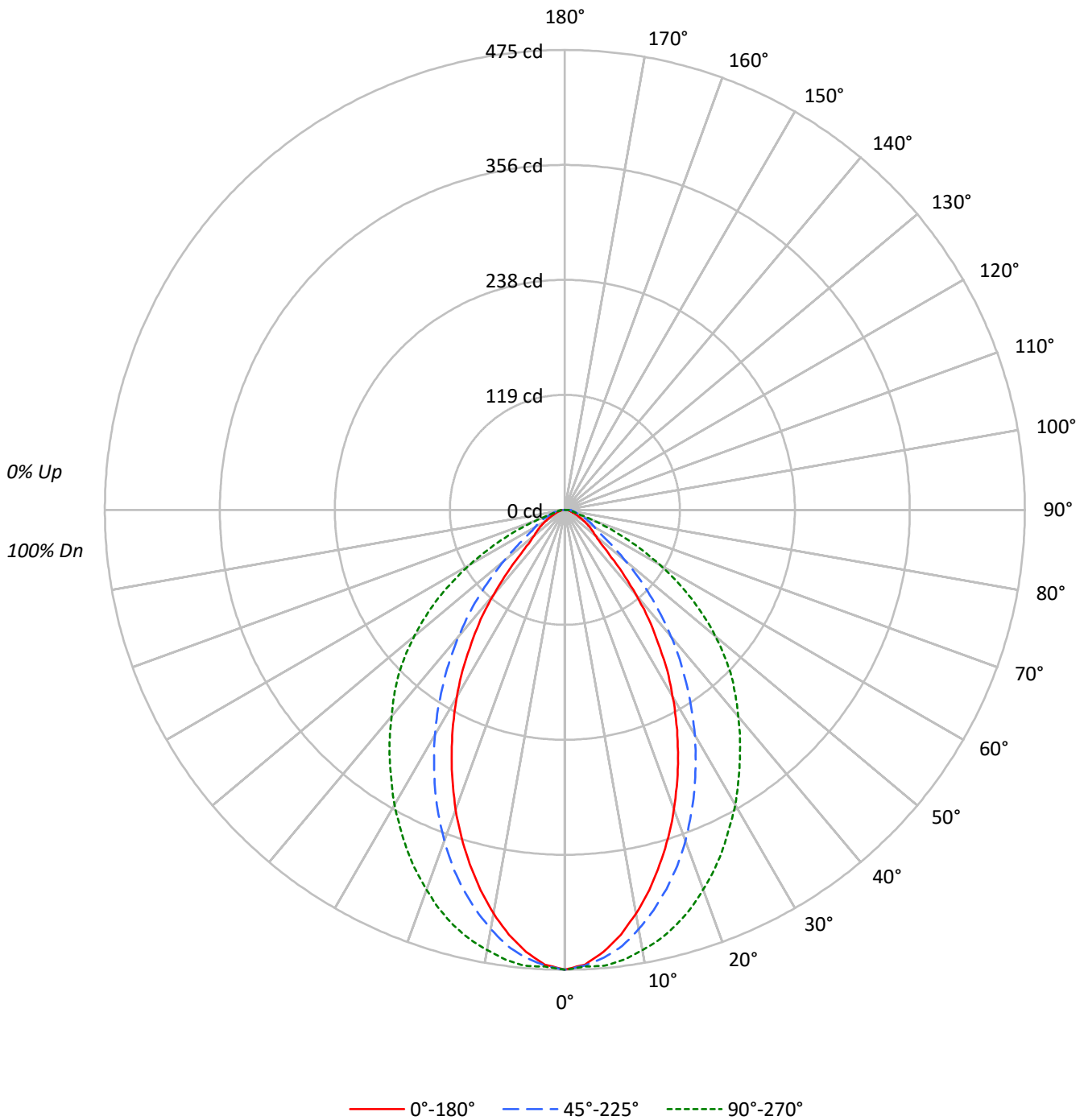
Lumens per Lamp: N/A
Luminaire Lumens: 672.1 lumens
Efficiency: N/A
Efficacy: 38.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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	104	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	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4089	4089	4089
5°	3962	4013	4086
10°	3702	3846	4036
15°	3377	3614	3959
20°	3019	3336	3827
25°	2626	3015	3670
30°	2215	2670	3498
35°	1763	2298	3313
40°	1283	1914	3131
45°	776	1513	2965
50°	555	1094	2715
55°	470	740	2398
60°	384	603	1938
65°	304	540	1394
70°	254	453	735
75°	230	423	369
80°	238	422	367
85°	316	632	415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2965 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	6.5
10°-20°	114.6	17.0
20°-30°	148.6	22.1
30°-40°	143.0	21.3
40°-50°	106.4	15.8
50°-60°	65.4	9.7
60°-70°	32.1	4.8
70°-80°	12.5	1.9
80°-90°	5.7	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°	306.9	45.7
0°-40°	449.9	66.9
0°-60°	621.7	92.5
0°-90°	672.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	672.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	458	465	464	468	473	43
15°	379	391	405	430	444	106
25°	276	291	317	357	386	126
35°	168	184	219	273	315	105
45°	64	79	124	192	244	53
55°	31	32	49	112	160	28
65°	15	16	26	42	68	15
75°	7	12	13	12	11	8
85°	3	6	6	6	4	3
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	474.9	474.9	474.9	474.9	474.9
2.5°	470.1	475.4	471.1	471.7	472.2
5°	458.4	465.3	464.2	468.5	472.7
7.5°	442.5	450.5	454.2	462.7	468.5
10°	423.4	432.4	439.8	453.6	461.6
12.5°	402.2	412.8	423.4	442.0	454.2
15°	378.8	391.0	405.4	429.8	444.1
17.5°	355.0	367.2	385.7	413.8	431.9
20°	329.5	342.7	364.0	395.3	417.6
22.5°	303.0	317.3	340.6	376.2	402.7
25°	276.4	291.3	317.3	357.1	386.3
27.5°	249.9	264.2	292.3	336.9	368.7
30°	222.8	237.7	268.5	315.2	351.8
32.5°	196.8	210.6	243.5	294.5	333.2
35°	167.7	183.6	218.6	273.2	315.2
37.5°	142.7	157.0	194.7	252.0	297.1
40°	114.1	130.0	170.3	231.3	278.5
42.5°	87.5	103.5	147.0	210.6	261.0
45°	63.7	79.1	124.2	191.5	243.5
47.5°	48.3	57.3	101.9	173.0	223.9
50°	41.4	44.0	81.7	152.8	202.7
52.5°	36.6	37.7	63.7	132.6	181.5
55°	31.3	32.4	49.3	112.5	159.7
57.5°	26.5	27.1	39.8	93.4	136.4
60°	22.3	22.8	35.0	74.8	112.5
62.5°	18.6	19.1	31.3	57.8	89.7
65°	14.9	15.9	26.5	42.4	68.4
67.5°	12.2	14.3	22.3	29.7	47.8
70°	10.1	13.8	18.0	20.7	29.2
72.5°	8.5	12.7	15.4	14.9	14.3
75°	6.9	12.2	12.7	11.7	11.1
77.5°	5.8	10.6	10.6	9.6	9.0
80°	4.8	8.5	8.5	8.5	7.4
82.5°	4.2	6.9	7.4	7.4	5.8
85°	3.2	5.8	6.4	6.4	4.2
87.5°	2.1	5.3	5.8	5.3	3.2
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	4.68	6.03	5.05	6.34	6.65	13.85	15.19	14.21	15.50	15.82
	3H	5.79	6.98	6.17	7.31	7.68	14.35	15.55	14.73	15.88	16.24
	4H	6.31	7.42	6.71	7.77	8.15	14.37	15.48	14.78	15.83	16.22
	6H	6.74	7.76	7.16	8.13	8.53	14.38	15.41	14.80	15.78	16.17
	8H	6.93	7.90	7.36	8.29	8.69	14.39	15.35	14.82	15.75	16.15
	12H	7.11	8.04	7.54	8.42	8.85	14.39	15.31	14.82	15.70	16.13
4H	2H	5.83	6.94	6.23	7.29	7.67	13.74	14.85	14.14	15.20	15.58
	3H	7.16	8.07	7.58	8.48	8.88	14.33	15.24	14.74	15.64	16.04
	4H	7.90	8.71	8.33	9.13	9.57	14.39	15.20	14.82	15.62	16.06
	6H	8.51	9.21	8.97	9.65	10.12	14.46	15.17	14.93	15.61	16.08
	8H	8.75	9.40	9.22	9.85	10.32	14.49	15.15	14.96	15.60	16.07
	12H	8.98	9.56	9.47	10.05	10.52	14.53	15.11	15.02	15.60	16.07
8H	4H	8.36	9.02	8.83	9.47	9.94	14.35	15.00	14.81	15.45	15.92
	6H	9.21	9.75	9.72	10.25	10.73	14.47	15.01	14.97	15.51	15.99
	8H	9.62	10.10	10.14	10.62	11.11	14.56	15.04	15.08	15.55	16.04
	12H	10.04	10.47	10.55	10.96	11.53	14.68	15.10	15.19	15.60	16.17
12H	4H	8.42	9.00	8.90	9.48	9.96	14.32	14.90	14.80	15.38	15.86
	6H	9.35	9.83	9.87	10.34	10.84	14.45	14.94	14.98	15.45	15.94
	8H	9.87	10.29	10.38	10.79	11.36	14.59	15.01	15.10	15.51	16.08