

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060486

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

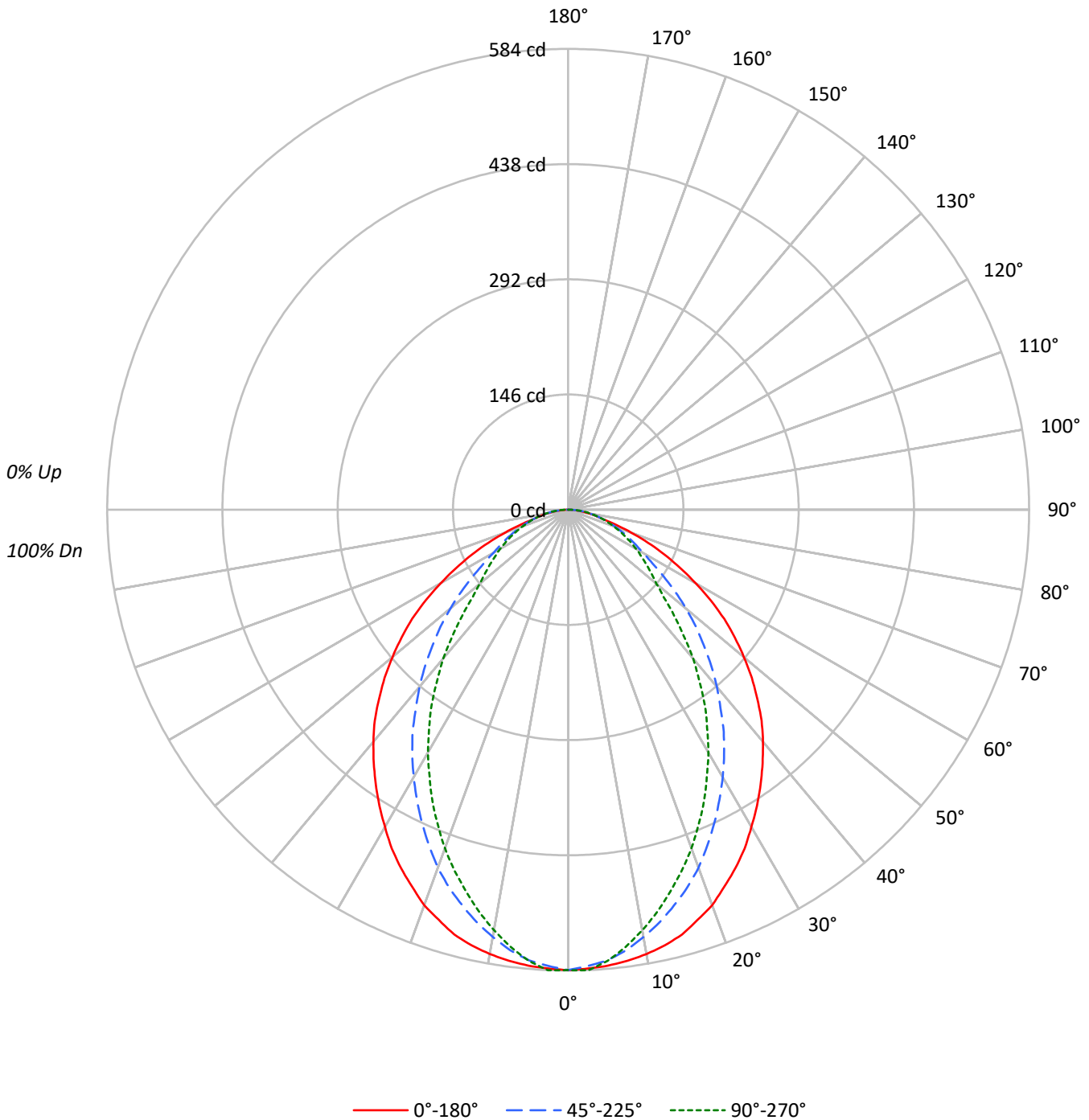
Lumens per Lamp: N/A
Luminaire Lumens: 1125.0 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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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CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-WVL-B

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5025	5025	5025
5°	5014	4955	4961
10°	5000	4808	4730
15°	4969	4627	4462
20°	4888	4423	4184
25°	4762	4163	3870
30°	4616	3893	3532
35°	4469	3611	3172
40°	4315	3291	2766
45°	4125	2956	2313
50°	3894	2608	1956
55°	3623	2213	1812
60°	3212	1877	1712
65°	2738	1732	1620
70°	2140	1606	1536
75°	1461	1484	1484
80°	1260	1393	1428
85°	1087	1354	1492

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4125 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	4.8
10°-20°	147.4	13.1
20°-30°	204.7	18.2
30°-40°	219.4	19.5
40°-50°	194.4	17.3
50°-60°	146.5	13.0
60°-70°	94.8	8.4
70°-80°	48.7	4.3
80°-90°	14.9	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°	406.4	36.1
0°-40°	625.8	55.6
0°-60°	966.6	85.9
0°-90°	1125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1125.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	580	581	573	574	574	55
15°	557	545	519	506	500	157
25°	501	474	438	415	407	231
35°	425	387	344	313	302	266
45°	339	295	243	205	190	261
55°	241	201	147	124	121	214
65°	134	108	85	80	80	133
75°	44	46	45	45	45	52
85°	11	12	14	15	15	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	583.5	583.5	583.5	583.5	583.5
2.5°	582.1	584.2	578.7	582.8	584.2
5°	580.0	580.7	573.2	573.9	573.9
7.5°	576.6	575.2	562.9	559.5	558.8
10°	571.8	567.7	549.9	543.0	541.0
12.5°	565.6	558.1	535.5	525.9	521.8
15°	557.4	545.1	519.0	506.0	500.5
17.5°	545.1	529.3	501.9	485.4	479.3
20°	533.4	512.2	482.7	462.1	456.6
22.5°	517.0	494.3	460.7	438.8	431.9
25°	501.2	474.5	438.1	414.8	407.3
27.5°	484.1	453.9	414.8	390.1	380.5
30°	464.2	431.9	391.5	365.4	355.2
32.5°	445.0	410.7	367.5	338.7	327.7
35°	425.1	386.7	343.5	312.6	301.7
37.5°	404.5	364.1	316.8	286.6	272.2
40°	383.9	341.4	292.8	258.5	246.1
42.5°	362.7	318.1	268.1	232.4	216.7
45°	338.7	294.8	242.7	205.0	189.9
47.5°	315.4	272.2	219.4	178.3	164.5
50°	290.7	248.2	194.7	155.0	146.0
52.5°	266.0	223.5	170.7	137.1	133.0
55°	241.3	200.9	147.4	124.1	120.7
57.5°	213.9	177.6	126.8	112.4	109.7
60°	186.5	152.2	109.0	101.5	99.4
62.5°	159.8	130.3	96.7	90.5	89.1
65°	134.4	108.3	85.0	80.2	79.5
67.5°	109.7	89.1	74.0	71.3	69.9
70°	85.0	71.3	63.8	62.4	61.0
72.5°	63.1	57.6	54.2	53.5	52.8
75°	43.9	45.9	44.6	44.6	44.6
77.5°	35.0	35.7	36.3	37.0	36.3
80°	25.4	27.4	28.1	29.5	28.8
82.5°	17.8	19.2	21.3	21.9	22.6
85°	11.0	11.7	13.7	15.1	15.1
87.5°	4.8	5.5	6.9	8.2	8.9
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	16.05	17.55	16.41	17.86	18.17	12.61	14.11	12.98	14.42	14.74
	3H	17.25	18.60	17.63	18.92	19.29	14.31	15.65	14.68	15.98	16.34
	4H	17.56	18.82	17.96	19.17	19.55	14.99	16.24	15.39	16.59	16.97
	6H	17.76	18.93	18.18	19.29	19.69	15.53	16.70	15.95	17.06	17.46
	8H	17.82	18.93	18.25	19.32	19.72	15.75	16.86	16.18	17.25	17.65
	12H	17.85	18.91	18.28	19.30	19.73	15.92	16.98	16.35	17.37	17.79
4H	2H	16.19	17.45	16.59	17.80	18.18	13.27	14.53	13.67	14.88	15.26
	3H	17.59	18.64	18.00	19.04	19.44	15.18	16.23	15.59	16.63	17.03
	4H	18.02	18.96	18.45	19.37	19.81	15.98	16.92	16.42	17.34	17.78
	6H	18.34	19.16	18.80	19.60	20.06	16.67	17.49	17.13	17.93	18.39
	8H	18.44	19.21	18.90	19.65	20.12	16.94	17.71	17.41	18.15	18.62
	12H	18.51	19.19	18.99	19.67	20.14	17.17	17.86	17.66	18.34	18.81
8H	4H	18.14	18.91	18.61	19.35	19.82	16.30	17.07	16.76	17.51	17.98
	6H	18.57	19.20	19.06	19.69	20.17	17.13	17.76	17.63	18.25	18.73
	8H	18.72	19.29	19.24	19.80	20.29	17.49	18.06	18.01	18.57	19.06
	12H	18.85	19.35	19.36	19.85	20.41	17.83	18.33	18.34	18.82	19.39
12H	4H	18.15	18.83	18.63	19.31	19.78	16.33	17.01	16.81	17.49	17.96
	6H	18.59	19.16	19.11	19.67	20.16	17.19	17.76	17.70	18.27	18.76
	8H	18.80	19.30	19.31	19.79	20.36	17.62	18.12	18.13	18.61	19.18