

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: P1060480

Luminaire Tested: S124RDR-S575D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060480
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S575D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

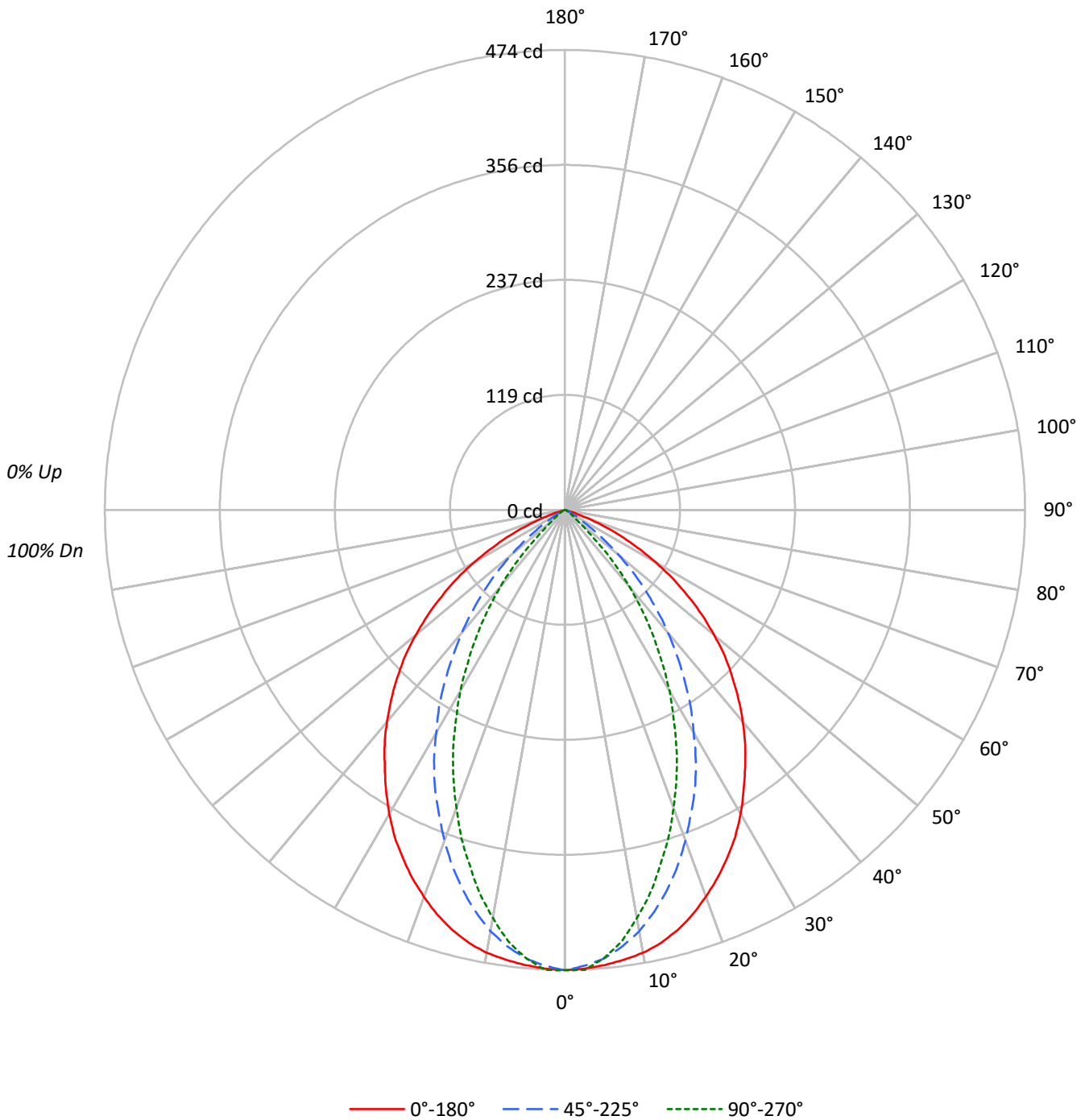
Lumens per Lamp: N/A
Luminaire Lumens: 619.5 lumens
Efficiency: N/A
Efficacy: 31.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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: P1060480

CATALOG NUMBER: S124RDR-S575D840-X4F0-XX-UDD-BVL-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	0
RW	70	50	30	10	70	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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4086	4086	4086
5°	4071	4013	4007
10°	4053	3855	3735
15°	3997	3619	3381
20°	3889	3324	2997
25°	3759	3010	2586
30°	3599	2638	2141
35°	3402	2263	1665
40°	3206	1857	1163
45°	2973	1427	576
50°	2682	965	193
55°	2317	494	134
60°	1853	177	95
65°	1271	98	43
70°	569	53	35
75°	0	23	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2973 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	7.1
10°-20°	114.8	18.5
20°-30°	148.7	24.0
30°-40°	141.3	22.8
40°-50°	100.0	16.1
50°-60°	51.3	8.3
60°-70°	18.0	2.9
70°-80°	1.6	0.3
80°-90°	0.0	0.0
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°	307.4	49.6
0°-40°	448.6	72.4
0°-60°	600.0	96.8
0°-90°	619.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	619.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	471	472	464	464	464	45
15°	448	435	406	387	379	126
25°	396	365	317	283	272	182
35°	324	276	215	174	158	202
45°	244	188	117	67	47	188
55°	154	102	33	10	9	138
65°	62	30	5	3	2	62
75°	0	1	1	1	1	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	474.5	474.5	474.5	474.5	474.5
2.5°	473.1	474.5	470.3	473.8	474.5
5°	471.0	471.7	464.2	464.2	463.5
7.5°	467.6	466.2	453.9	449.1	448.4
10°	463.5	458.7	440.9	430.6	427.1
12.5°	457.3	448.4	424.4	409.3	405.2
15°	448.4	434.7	405.9	386.7	379.2
17.5°	437.4	419.6	385.3	362.0	354.5
20°	424.4	401.8	362.7	336.6	327.0
22.5°	410.7	384.6	339.4	309.9	300.3
25°	395.6	364.8	316.8	283.2	272.2
27.5°	379.8	343.5	292.1	257.1	242.7
30°	362.0	322.2	265.3	229.0	215.3
32.5°	342.8	298.9	241.3	202.3	185.8
35°	323.6	276.3	215.3	173.5	158.4
37.5°	305.1	255.1	189.2	145.4	131.0
40°	285.2	231.7	165.2	120.0	103.5
42.5°	264.7	209.1	140.6	93.9	76.1
45°	244.1	187.9	117.2	67.2	47.3
47.5°	223.5	165.2	94.6	42.5	25.4
50°	200.2	143.3	72.0	22.6	14.4
52.5°	178.3	122.7	51.4	13.0	11.0
55°	154.3	101.5	32.9	9.6	8.9
57.5°	131.6	80.9	18.5	7.5	6.9
60°	107.6	62.4	10.3	6.2	5.5
62.5°	83.6	45.3	6.9	4.1	3.4
65°	62.4	30.2	4.8	2.7	2.1
67.5°	41.1	17.1	3.4	1.4	1.4
70°	22.6	8.2	2.1	1.4	1.4
72.5°	8.2	2.7	1.4	0.7	0.7
75°	0.0	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.7
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)