

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: P1060471

Luminaire Tested: S124RDRP-S575D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060471
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: S124RDRP-S575D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

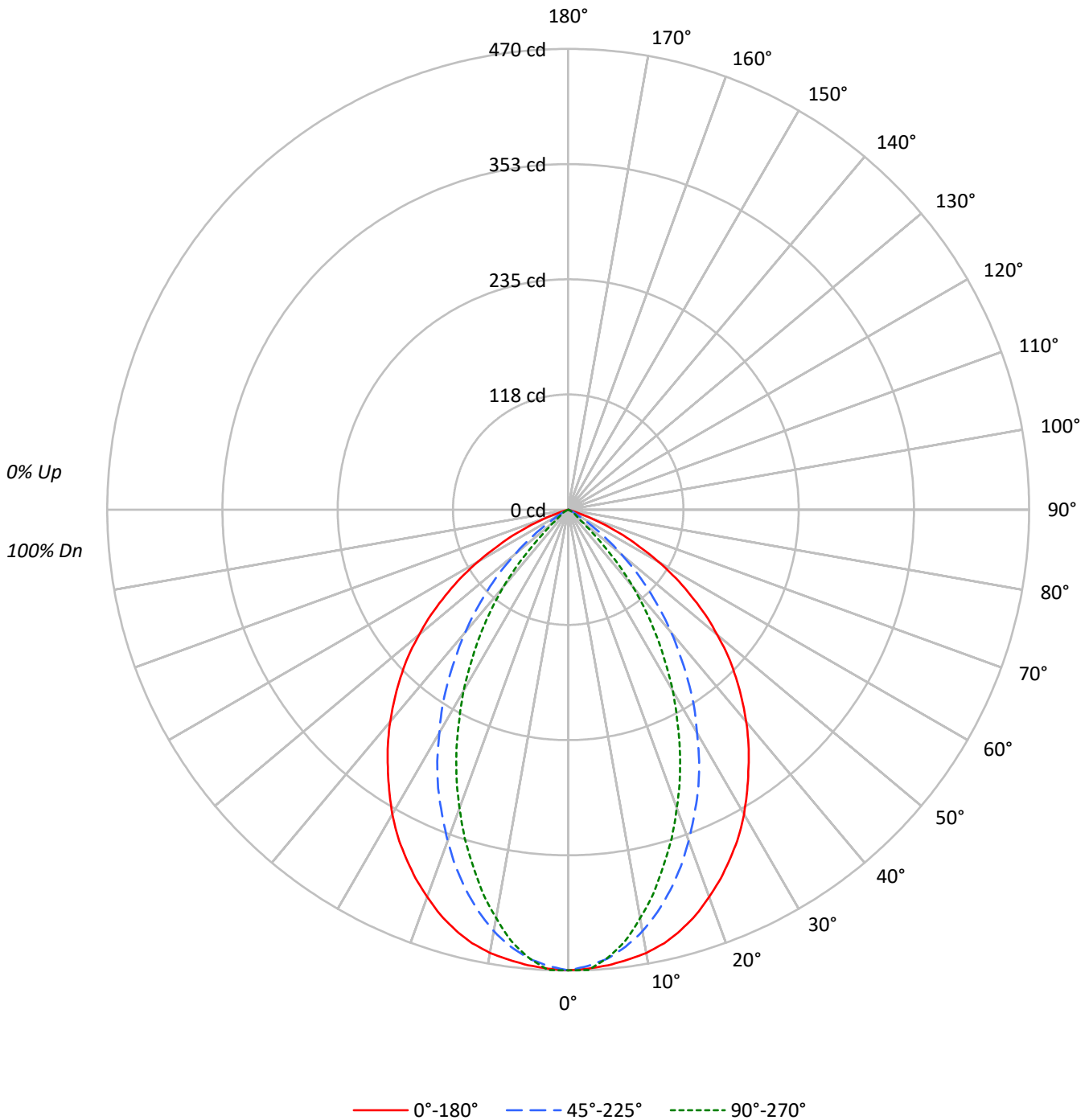
Lumens per Lamp: N/A
Luminaire Lumens: 613.5 lumens
Efficiency: N/A
Efficacy: 31.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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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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°	4046	4046	4046
5°	4032	3973	3968
10°	4013	3818	3699
15°	3958	3583	3347
20°	3852	3292	2967
25°	3722	2981	2561
30°	3565	2612	2120
35°	3369	2241	1648
40°	3174	1839	1152
45°	2943	1414	570
50°	2655	955	192
55°	2294	489	132
60°	1836	176	93
65°	1259	98	41
70°	564	50	35
75°	0	23	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2943 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.4	7.1
10°-20°	113.7	18.5
20°-30°	147.2	24.0
30°-40°	139.9	22.8
40°-50°	99.1	16.1
50°-60°	50.9	8.3
60°-70°	17.8	2.9
70°-80°	1.5	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°	304.4	49.6
0°-40°	444.2	72.4
0°-60°	594.2	96.8
0°-90°	613.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	613.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	466	467	460	460	459	44
15°	444	430	402	383	375	125
25°	392	361	314	280	270	180
35°	320	274	213	172	157	200
45°	242	186	116	66	47	186
55°	153	100	33	10	9	137
65°	62	30	5	3	2	61
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°	469.8	469.8	469.8	469.8	469.8
2.5°	468.5	469.8	465.7	469.1	469.8
5°	466.4	467.1	459.6	459.6	459.0
7.5°	463.0	461.7	449.5	444.7	444.0
10°	459.0	454.2	436.6	426.4	423.0
12.5°	452.8	444.0	420.3	405.3	401.2
15°	444.0	430.4	401.9	382.9	375.4
17.5°	433.2	415.5	381.6	358.5	351.0
20°	420.3	397.9	359.2	333.4	323.8
22.5°	406.7	380.9	336.1	306.9	297.4
25°	391.7	361.2	313.7	280.4	269.5
27.5°	376.1	340.1	289.2	254.6	240.3
30°	358.5	319.1	262.7	226.8	213.2
32.5°	339.5	296.0	239.0	200.3	184.0
35°	320.5	273.6	213.2	171.8	156.8
37.5°	302.1	252.6	187.4	143.9	129.7
40°	282.4	229.5	163.6	118.8	102.5
42.5°	262.1	207.1	139.2	93.0	75.4
45°	241.7	186.0	116.1	66.5	46.8
47.5°	221.3	163.6	93.7	42.1	25.1
50°	198.2	141.9	71.3	22.4	14.3
52.5°	176.5	121.5	50.9	12.9	10.9
55°	152.8	100.5	32.6	9.5	8.8
57.5°	130.4	80.1	18.3	7.5	6.8
60°	106.6	61.8	10.2	6.1	5.4
62.5°	82.8	44.8	6.8	4.1	3.4
65°	61.8	29.9	4.8	2.7	2.0
67.5°	40.7	17.0	3.4	1.4	1.4
70°	22.4	8.1	2.0	1.4	1.4
72.5°	8.1	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



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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	13.38	14.64	13.75	14.95	15.27	0.00	0.00	0.00	0.00	0.00
	3H	13.66	14.77	14.04	15.10	15.46	0.00	0.00	0.00	0.00	0.00
	4H	13.58	14.61	13.99	14.96	15.35	0.00	0.00	0.00	0.00	0.00
	6H	13.50	14.44	13.91	14.81	15.20	0.00	0.00	0.00	0.00	0.00
	8H	13.45	14.34	13.88	14.73	15.14	0.00	0.00	0.00	0.00	0.00
	12H	13.41	14.25	13.84	14.64	15.07	0.00	0.00	0.00	0.00	0.00
4H	2H	13.16	14.18	13.56	14.53	14.92	0.00	0.00	0.00	0.00	0.00
	3H	13.44	14.27	13.85	14.67	15.08	0.00	0.00	0.00	0.00	0.00
	4H	13.35	14.08	13.78	14.50	14.95	0.00	0.00	0.00	0.00	0.00
	6H	13.26	13.89	13.73	14.34	14.81	0.00	0.00	0.00	0.00	0.00
	8H	13.20	13.79	13.67	14.24	14.71	0.00	0.00	0.00	0.00	0.00
	12H	13.15	13.66	13.64	14.15	14.62	0.00	0.00	0.00	0.00	0.00
8H	4H	13.20	13.79	13.67	14.24	14.71	0.00	0.00	0.00	0.00	0.00
	6H	13.09	13.57	13.60	14.07	14.55	0.00	0.00	0.00	0.00	0.00
	8H	13.02	13.45	13.55	13.97	14.46	0.00	0.00	0.00	0.00	0.00
	12H	12.97	13.35	13.49	13.85	14.42	0.00	0.00	0.00	0.00	0.00
12H	4H	13.15	13.66	13.64	14.15	14.62	0.00	0.00	0.00	0.00	0.00
	6H	13.02	13.45	13.55	13.97	14.46	0.00	0.00	0.00	0.00	0.00
	8H	12.97	13.35	13.49	13.85	14.42	0.00	0.00	0.00	0.00	0.00