

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: P1060495

Luminaire Tested: S124RDRP-S575D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060495
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-S575D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

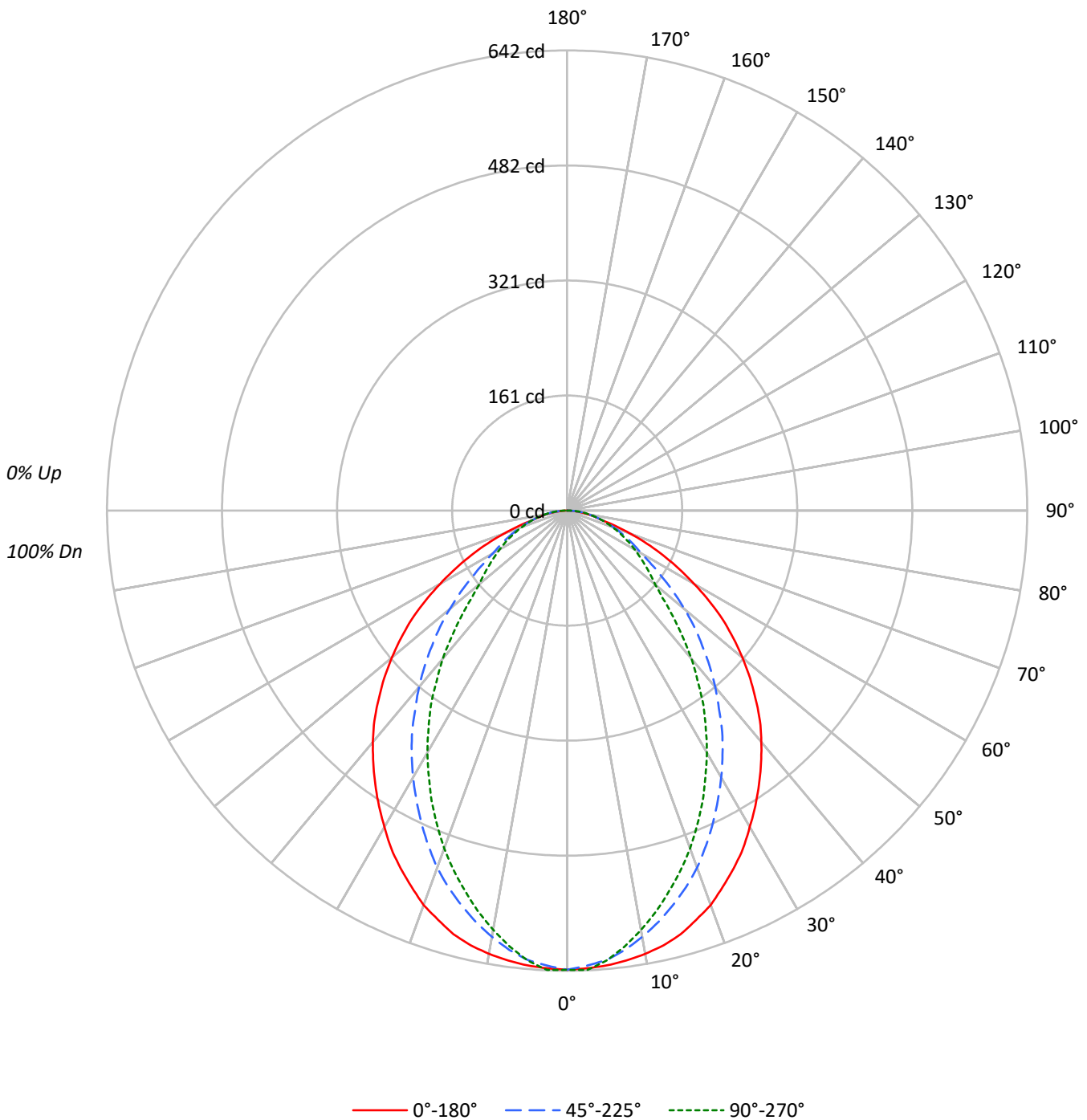
Lumens per Lamp: N/A
Luminaire Lumens: 1235.5 lumens
Efficiency: N/A
Efficacy: 63.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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-S575D850-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					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			
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76					74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66					64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46					44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5517	5517	5517
5°	5506	5441	5447
10°	5490	5280	5195
15°	5457	5081	4900
20°	5368	4858	4596
25°	5230	4571	4249
30°	5068	4275	3878
35°	4907	3965	3483
40°	4739	3614	3038
45°	4529	3245	2540
50°	4276	2864	2149
55°	3978	2431	1989
60°	3527	2062	1881
65°	3007	1903	1779
70°	2352	1762	1687
75°	1604	1627	1627
80°	1384	1532	1567
85°	1186	1492	1640

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4529 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	4.8
10°-20°	161.9	13.1
20°-30°	224.8	18.2
30°-40°	240.9	19.5
40°-50°	213.4	17.3
50°-60°	160.9	13.0
60°-70°	104.2	8.4
70°-80°	53.4	4.3
80°-90°	16.4	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°	446.3	36.1
0°-40°	687.2	55.6
0°-60°	1061.5	85.9
0°-90°	1235.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1235.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	641	641	641	641	641	
5°	637	638	629	630	630	61
15°	612	599	570	556	550	172
25°	550	521	481	456	447	253
35°	467	425	377	343	331	292
45°	372	324	266	225	209	287
55°	265	221	162	136	132	235
65°	148	119	93	88	87	146
75°	48	50	49	49	49	57
85°	12	13	15	17	17	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	640.7	640.7	640.7	640.7	640.7
2.5°	639.2	641.5	635.5	640.0	641.5
5°	637.0	637.7	629.4	630.2	630.2
7.5°	633.2	631.7	618.2	614.4	613.6
10°	627.9	623.4	603.8	596.3	594.1
12.5°	621.2	612.9	588.0	577.5	573.0
15°	612.1	598.6	570.0	555.7	549.6
17.5°	598.6	581.3	551.1	533.1	526.3
20°	585.8	562.4	530.1	507.5	501.5
22.5°	567.7	542.9	506.0	481.9	474.3
25°	550.4	521.0	481.1	455.5	447.2
27.5°	531.6	498.4	455.5	428.4	417.9
30°	509.7	474.3	429.9	401.3	390.0
32.5°	488.7	451.0	403.6	371.9	359.9
35°	466.8	424.7	377.2	343.3	331.3
37.5°	444.2	399.8	347.9	314.7	298.9
40°	421.6	375.0	321.5	283.9	270.3
42.5°	398.3	349.4	294.4	255.2	237.9
45°	371.9	323.8	266.5	225.1	208.6
47.5°	346.3	298.9	240.9	195.8	180.7
50°	319.2	272.6	213.8	170.2	160.4
52.5°	292.1	245.5	187.5	150.6	146.1
55°	265.0	220.6	161.9	136.3	132.5
57.5°	234.9	195.0	139.3	123.5	120.5
60°	204.8	167.2	119.7	111.4	109.2
62.5°	175.4	143.1	106.2	99.4	97.9
65°	147.6	119.0	93.4	88.1	87.3
67.5°	120.5	97.9	81.3	78.3	76.8
70°	93.4	78.3	70.0	68.5	67.0
72.5°	69.3	63.2	59.5	58.7	58.0
75°	48.2	50.4	48.9	48.9	48.9
77.5°	38.4	39.2	39.9	40.7	39.9
80°	27.9	30.1	30.9	32.4	31.6
82.5°	19.6	21.1	23.3	24.1	24.8
85°	12.0	12.8	15.1	16.6	16.6
87.5°	5.3	6.0	7.5	9.0	9.8
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	16.37	17.87	16.74	18.18	18.50	12.94	14.44	13.30	14.75	15.07
	3H	17.58	18.92	17.96	19.25	19.61	14.63	15.98	15.01	16.30	16.67
	4H	17.88	19.14	18.28	19.49	19.87	15.31	16.57	15.71	16.92	17.30
	6H	18.09	19.25	18.50	19.62	20.01	15.86	17.02	16.27	17.39	17.78
	8H	18.15	19.25	18.57	19.64	20.04	16.08	17.18	16.50	17.57	17.97
	12H	18.18	19.24	18.61	19.62	20.05	16.25	17.31	16.68	17.69	18.12
4H	2H	16.51	17.77	16.91	18.12	18.50	13.60	14.86	14.00	15.21	15.59
	3H	17.92	18.96	18.33	19.36	19.76	15.51	16.55	15.92	16.95	17.35
	4H	18.34	19.28	18.78	19.70	20.14	16.31	17.25	16.74	17.66	18.10
	6H	18.67	19.49	19.13	19.93	20.39	17.00	17.81	17.46	18.26	18.72
	8H	18.77	19.53	19.23	19.98	20.44	17.27	18.03	17.73	18.48	18.95
	12H	18.84	19.52	19.32	20.00	20.47	17.50	18.18	17.98	18.66	19.13
8H	4H	18.47	19.23	18.93	19.68	20.15	16.63	17.39	17.09	17.83	18.30
	6H	18.89	19.52	19.39	20.02	20.49	17.46	18.09	17.95	18.58	19.06
	8H	19.05	19.62	19.56	20.13	20.62	17.82	18.39	18.33	18.90	19.39
	12H	19.18	19.68	19.69	20.17	20.74	18.15	18.66	18.66	19.15	19.71
12H	4H	18.48	19.16	18.96	19.64	20.11	16.65	17.34	17.14	17.82	18.29
	6H	18.92	19.48	19.43	20.00	20.48	17.51	18.08	18.03	18.59	19.08
	8H	19.13	19.63	19.64	20.12	20.69	17.95	18.45	18.46	18.94	19.51