

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: P1060497

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
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-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

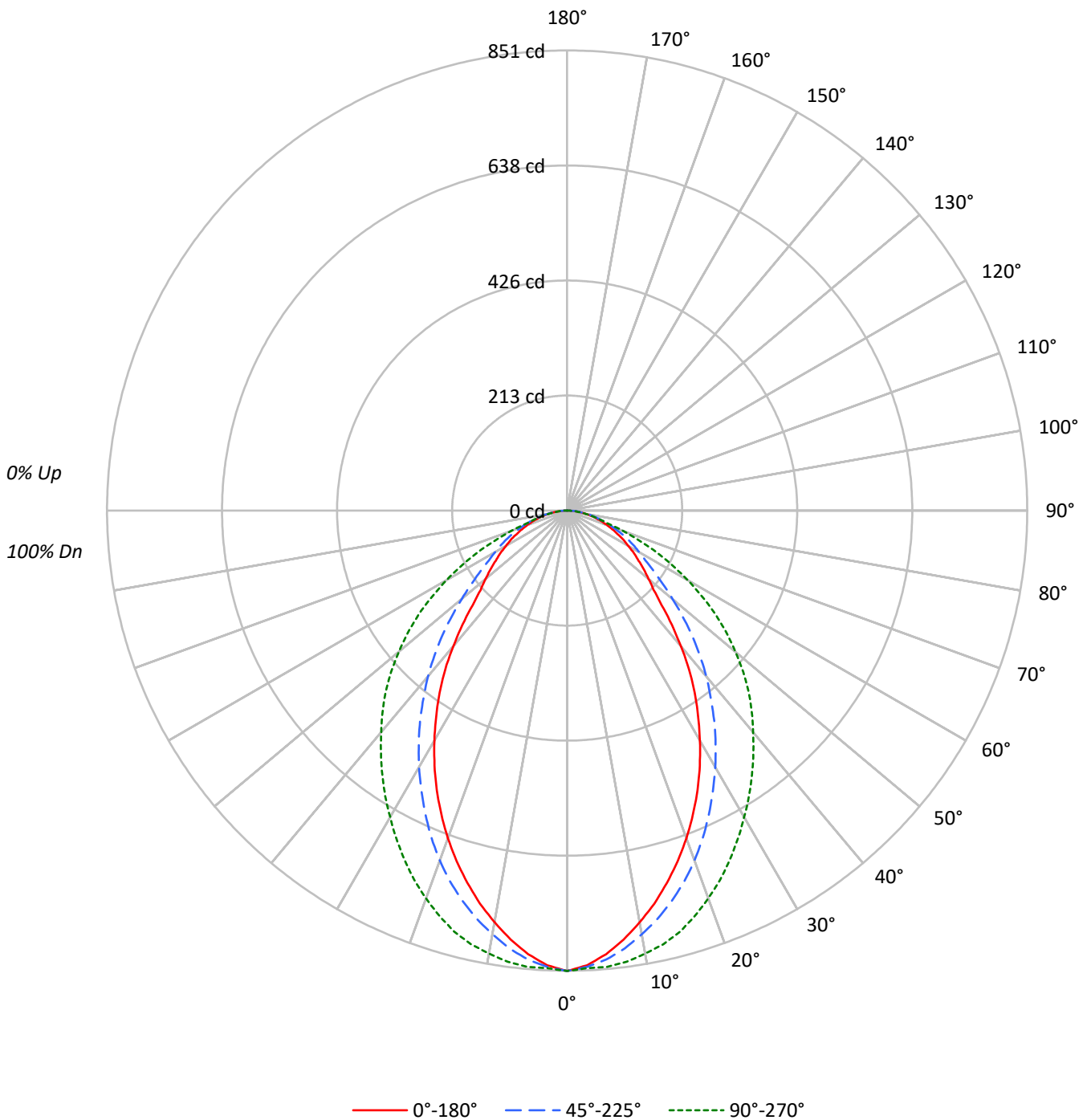
Lumens per Lamp: N/A
Luminaire Lumens: 1562.3 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7332	7332	7332
5°	7118	7203	7321
10°	6759	6957	7273
15°	6355	6663	7187
20°	5910	6310	6994
25°	5420	5892	6765
30°	4884	5447	6510
35°	4325	4982	6265
40°	3676	4498	6013
45°	3009	3972	5781
50°	2634	3412	5440
55°	2420	2941	5034
60°	2244	2647	4438
65°	2103	2488	3714
70°	1974	2276	2790
75°	1857	2079	2030
80°	1721	1904	1721
85°	1561	1857	1492

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	5.0
10°-20°	211.7	13.6
20°-30°	289.4	18.5
30°-40°	304.1	19.5
40°-50°	263.9	16.9
50°-60°	199.1	12.7
60°-70°	129.1	8.3
70°-80°	66.2	4.2
80°-90°	20.1	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°	579.8	37.1
0°-40°	883.9	56.6
0°-60°	1346.9	86.2
0°-90°	1562.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1562.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	824	835	833	840	847	77
15°	713	730	747	781	806	200
25°	570	591	620	668	712	261
35°	411	434	474	537	596	256
45°	247	270	326	408	475	195
55°	161	166	196	278	335	145
65°	103	106	122	148	182	103
75°	56	62	62	63	61	59
85°	16	20	19	18	15	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	851.4	851.4	851.4	851.4	851.4
2.5°	841.6	852.1	844.6	846.1	846.9
5°	823.5	834.8	833.3	840.1	846.9
7.5°	800.2	813.7	816.7	830.3	841.6
10°	773.0	788.1	795.6	817.5	831.8
12.5°	744.4	759.5	773.0	800.9	821.3
15°	712.8	730.1	747.4	781.3	806.2
17.5°	679.6	697.7	719.5	756.5	785.8
20°	644.9	663.0	688.6	728.6	763.2
22.5°	608.0	628.4	655.5	698.4	739.1
25°	570.4	590.7	620.1	667.6	712.0
27.5°	531.2	552.3	583.9	636.7	684.1
30°	491.2	513.8	547.8	603.5	654.7
32.5°	450.6	474.7	510.8	570.4	626.1
35°	411.4	434.0	473.9	537.2	596.0
37.5°	370.7	393.3	436.2	504.8	565.8
40°	327.0	351.9	400.1	470.9	534.9
42.5°	286.3	311.2	363.2	438.5	505.6
45°	247.1	270.5	326.2	407.6	474.7
47.5°	217.0	233.6	289.3	377.5	441.5
50°	196.6	204.2	254.7	344.3	406.1
52.5°	178.6	184.6	223.0	311.2	371.4
55°	161.2	165.8	195.9	278.0	335.3
57.5°	146.2	148.4	171.8	244.9	296.1
60°	130.3	133.4	153.7	211.0	257.7
62.5°	117.5	119.0	137.9	178.6	219.3
65°	103.2	105.5	122.1	147.7	182.3
67.5°	90.4	94.2	105.5	120.6	143.9
70°	78.4	83.6	90.4	97.9	110.8
72.5°	67.1	73.1	76.9	79.9	77.6
75°	55.8	62.5	62.5	63.3	61.0
77.5°	45.2	51.2	50.5	49.7	46.7
80°	34.7	39.9	38.4	37.7	34.7
82.5°	25.6	29.4	27.9	27.1	23.4
85°	15.8	19.6	18.8	18.1	15.1
87.5°	7.5	11.3	10.5	9.8	6.8
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	13.42	14.91	13.79	15.22	15.54	17.16	18.65	17.53	18.96	19.28
	3H	15.09	16.42	15.47	16.75	17.11	18.29	19.62	18.67	19.95	20.31
	4H	15.76	17.01	16.16	17.36	17.74	18.58	19.83	18.99	20.18	20.56
	6H	16.27	17.42	16.68	17.79	18.18	18.78	19.94	19.20	20.31	20.70
	8H	16.44	17.54	16.87	17.93	18.33	18.84	19.94	19.27	20.33	20.73
	12H	16.56	17.61	16.99	17.99	18.42	18.87	19.92	19.30	20.31	20.73
4H	2H	14.22	15.47	14.62	15.81	16.19	17.33	18.58	17.73	18.93	19.31
	3H	16.09	17.12	16.50	17.52	17.93	18.66	19.69	19.07	20.10	20.50
	4H	16.89	17.82	17.33	18.24	18.68	19.08	20.01	19.51	20.42	20.86
	6H	17.54	18.35	17.99	18.79	19.25	19.40	20.21	19.86	20.65	21.11
	8H	17.76	18.52	18.22	18.96	19.43	19.49	20.25	19.96	20.69	21.16
	12H	17.92	18.60	18.41	19.08	19.55	19.56	20.24	20.05	20.72	21.19
8H	4H	17.24	18.00	17.70	18.44	18.91	19.21	19.97	19.67	20.41	20.88
	6H	18.03	18.65	18.53	19.15	19.62	19.63	20.25	20.13	20.75	21.22
	8H	18.35	18.91	18.86	19.42	19.91	19.79	20.35	20.30	20.86	21.35
	12H	18.61	19.11	19.12	19.60	20.17	19.92	20.42	20.44	20.91	21.48
12H	4H	17.27	17.95	17.75	18.43	18.90	19.21	19.89	19.70	20.37	20.84
	6H	18.09	18.65	18.61	19.16	19.65	19.65	20.21	20.16	20.72	21.21
	8H	18.48	18.97	18.99	19.47	20.03	19.86	20.35	20.37	20.85	21.41