

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: P1056395

Luminaire Tested: S125R3DR-S1270D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056395
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1270D850-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

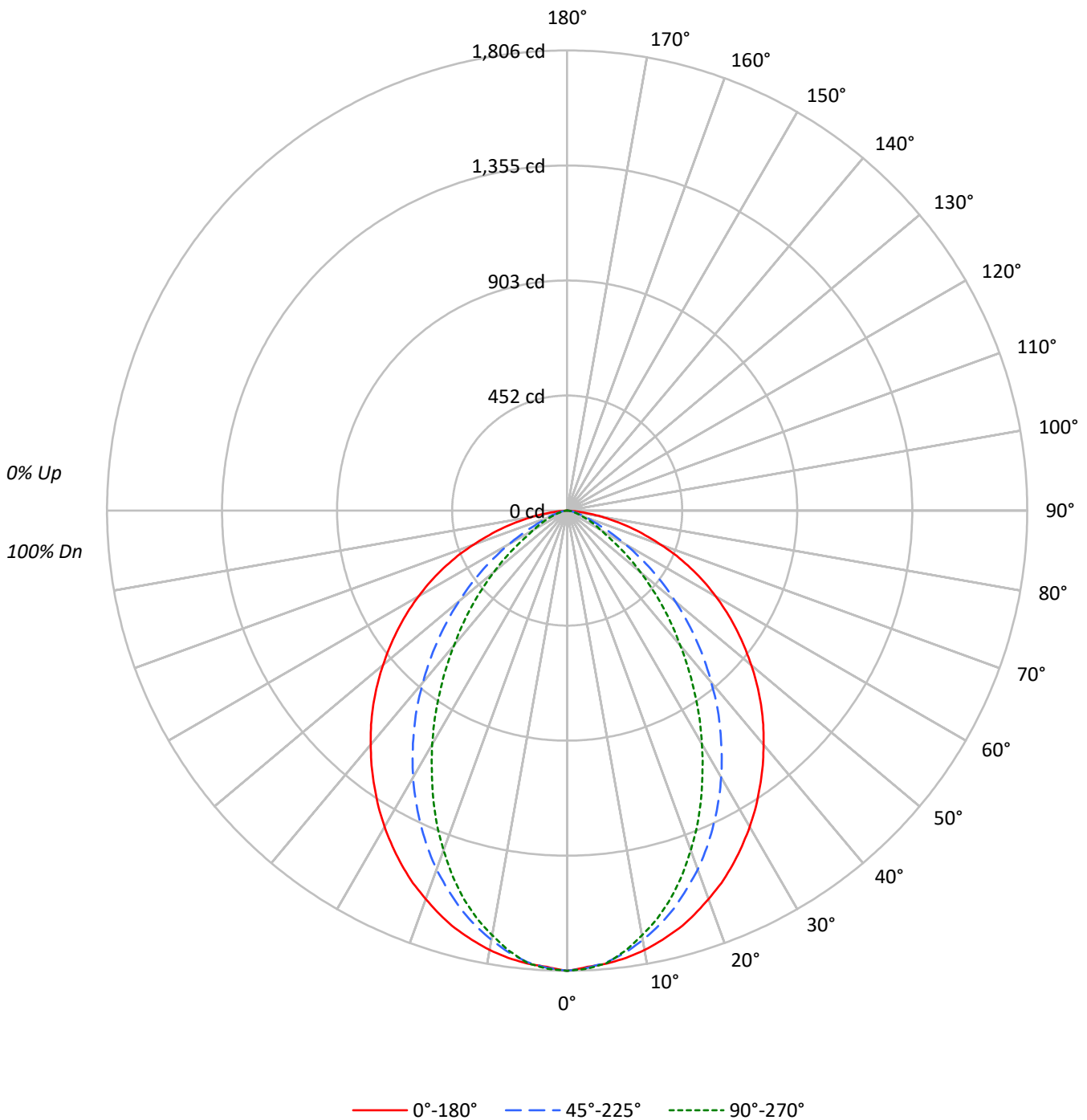
Lumens per Lamp: N/A
Luminaire Lumens: 3264.8 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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

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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12769	12769	12769
5°	12664	12629	12652
10°	12571	12282	12150
15°	12424	11837	11519
20°	12205	11274	10670
25°	11976	10607	9707
30°	11701	9871	8642
35°	11388	9036	7520
40°	11067	8119	6359
45°	10751	7156	5268
50°	10374	6088	4139
55°	9977	4947	3010
60°	9529	3689	2152
65°	8953	2434	1679
70°	8090	1695	1176
75°	7036	1095	915
80°	5516	818	749
85°	2847	681	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10751 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.2	5.2
10°-20°	457.4	14.0
20°-30°	632.5	19.4
30°-40°	670.1	20.5
40°-50°	584.9	17.9
50°-60°	416.0	12.7
60°-70°	231.3	7.1
70°-80°	88.9	2.7
80°-90°	15.4	0.5
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°	1258.2	38.5
0°-40°	1928.3	59.1
0°-60°	2929.1	89.7
0°-90°	3264.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3264.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1806	1806	1806	1806	1806	
5°	1785	1798	1780	1775	1783	169
15°	1698	1683	1617	1582	1574	478
25°	1535	1484	1360	1276	1244	707
35°	1320	1229	1047	920	871	826
45°	1075	947	716	572	527	829
55°	810	649	401	278	244	724
65°	535	351	146	107	100	529
75°	258	100	40	34	34	273
85°	35	10	8	7	7	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1806.3	1806.3	1806.3	1806.3	1806.3
2.5°	1793.0	1811.4	1796.3	1798.0	1799.7
5°	1784.6	1798.0	1779.6	1774.6	1782.9
7.5°	1771.2	1781.3	1749.5	1737.8	1742.8
10°	1751.2	1754.5	1711.0	1694.3	1692.6
12.5°	1726.1	1721.0	1667.5	1640.8	1639.1
15°	1697.6	1682.6	1617.3	1582.2	1573.9
17.5°	1662.5	1639.1	1558.8	1513.7	1500.3
20°	1622.4	1590.6	1498.6	1440.1	1418.3
22.5°	1582.2	1538.7	1431.7	1358.1	1334.7
25°	1535.4	1483.5	1359.8	1276.1	1244.4
27.5°	1485.2	1423.3	1286.2	1189.2	1150.7
30°	1433.4	1361.4	1209.2	1100.5	1058.7
32.5°	1378.2	1296.2	1129.0	1010.2	966.7
35°	1319.6	1229.3	1047.0	919.9	871.4
37.5°	1261.1	1160.7	966.7	831.3	781.1
40°	1199.2	1090.5	879.8	740.9	689.1
42.5°	1139.0	1018.6	797.8	655.6	608.8
45°	1075.4	946.7	715.8	572.0	526.9
47.5°	1010.2	871.4	633.9	493.4	448.2
50°	943.3	797.8	553.6	416.5	376.3
52.5°	876.4	724.2	478.3	342.9	307.7
55°	809.5	648.9	401.4	277.6	244.2
57.5°	742.6	575.4	329.5	217.4	187.3
60°	674.0	500.1	260.9	160.6	152.2
62.5°	605.5	426.5	202.4	132.1	125.4
65°	535.2	351.2	145.5	107.0	100.4
67.5°	465.0	282.7	105.4	82.0	76.9
70°	391.4	215.8	82.0	61.9	56.9
72.5°	321.1	155.5	58.5	45.2	43.5
75°	257.6	100.4	40.1	33.5	33.5
77.5°	194.0	60.2	28.4	25.1	25.1
80°	135.5	35.1	20.1	18.4	18.4
82.5°	82.0	18.4	13.4	11.7	11.7
85°	35.1	10.0	8.4	6.7	6.7
87.5°	6.7	3.3	3.3	3.3	3.3
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	20.01	21.46	20.38	21.77	22.08	12.65	14.09	13.01	14.41	14.72
	3H	21.57	22.86	21.95	23.19	23.55	13.21	14.50	13.59	14.83	15.19
	4H	22.09	23.29	22.49	23.64	24.02	13.34	14.54	13.74	14.89	15.27
	6H	22.43	23.54	22.84	23.90	24.30	13.40	14.51	13.82	14.88	15.27
	8H	22.51	23.56	22.94	23.95	24.36	13.41	14.46	13.83	14.85	15.25
	12H	22.54	23.54	22.97	23.92	24.35	13.40	14.40	13.83	14.78	15.21
4H	2H	19.91	21.11	20.31	21.46	21.84	13.21	14.42	13.61	14.76	15.15
	3H	21.57	22.56	21.99	22.96	23.37	13.89	14.87	14.30	15.28	15.68
	4H	22.12	23.01	22.56	23.42	23.86	14.04	14.93	14.48	15.34	15.79
	6H	22.52	23.28	22.98	23.72	24.19	14.16	14.92	14.62	15.36	15.83
	8H	22.62	23.33	23.09	23.78	24.25	14.17	14.88	14.63	15.33	15.80
	12H	22.67	23.30	23.15	23.78	24.25	14.17	14.80	14.65	15.28	15.76
8H	4H	22.03	22.74	22.49	23.19	23.65	14.31	15.03	14.78	15.47	15.94
	6H	22.41	23.00	22.91	23.49	23.97	14.45	15.03	14.95	15.53	16.01
	8H	22.52	23.05	23.04	23.56	24.05	14.48	15.00	14.99	15.51	16.00
	12H	22.58	23.05	23.10	23.54	24.11	14.50	14.96	15.01	15.45	16.02
12H	4H	21.99	22.62	22.47	23.10	23.58	14.33	14.96	14.81	15.44	15.92
	6H	22.36	22.89	22.88	23.40	23.89	14.46	14.98	14.98	15.50	15.99
	8H	22.49	22.95	23.00	23.45	24.01	14.52	14.98	15.03	15.47	16.04