

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: P1055153

Luminaire Tested: S122R3DRP-S1005D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055153  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DRP-S1005D850-X4F0-XX-UDD-F-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

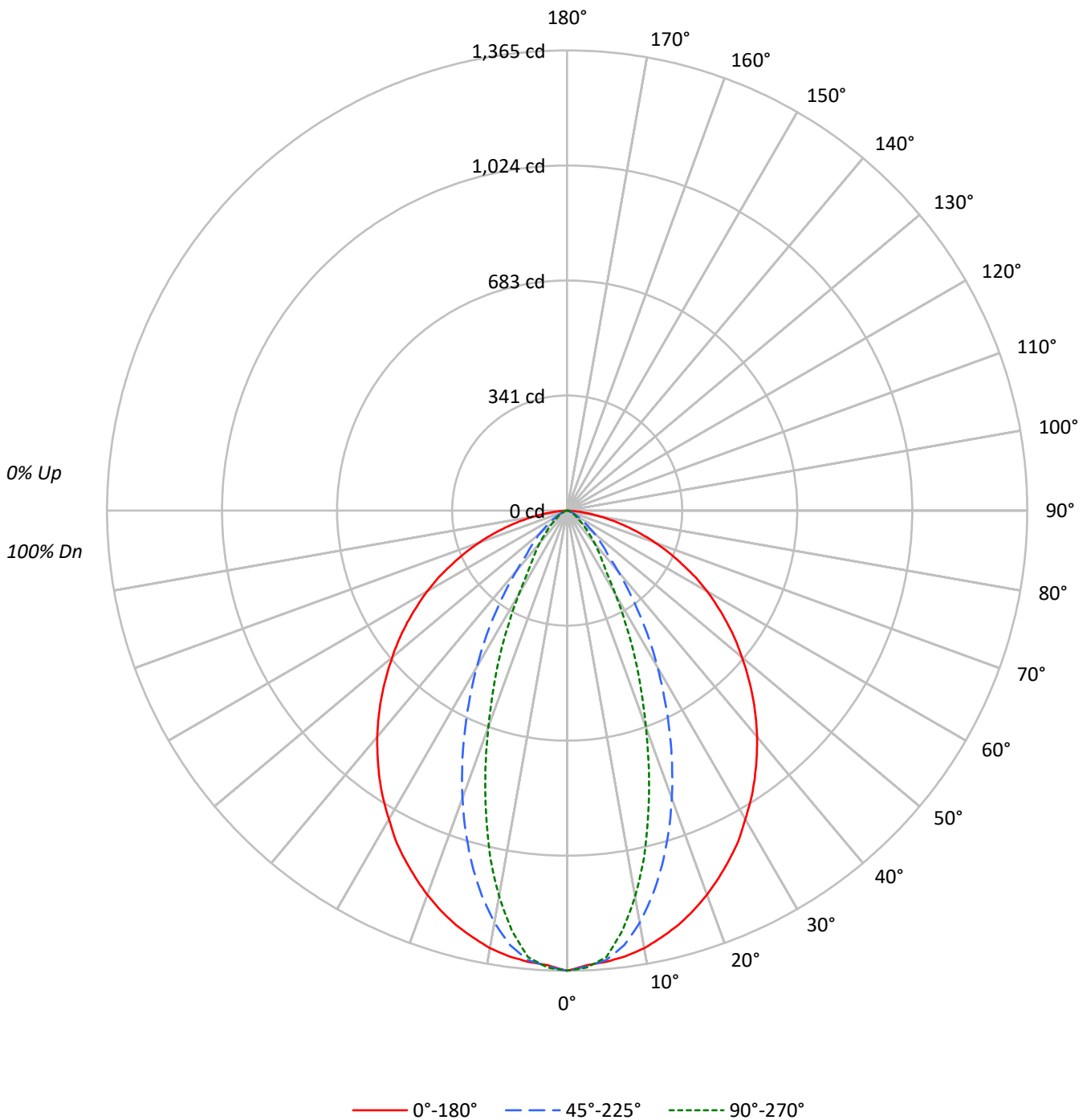
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1564.1 lumens  
Efficiency: N/A  
Efficacy: 37.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	25857	25857	25857
5°	25543	25446	25289
10°	25356	23875	22362
15°	24965	21356	18239
20°	24448	18311	13758
25°	23846	14999	9825
30°	23124	11708	6257
35°	22437	8588	4177
40°	21675	5792	3143
45°	20837	4078	2240
50°	19966	3107	1577
55°	19115	2154	1159
60°	18188	1459	951
65°	16869	1049	749
70°	15377	836	648
75°	13345	732	490
80°	10583	546	546
85°	5826	717	370

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20837 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.8	8.0
10°-20°	306.3	19.6
20°-30°	349.9	22.4
30°-40°	296.7	19.0
40°-50°	221.4	14.2
50°-60°	143.1	9.1
60°-70°	79.8	5.1
70°-80°	35.0	2.2
80°-90°	7.2	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°	780.9	49.9
0°-40°	1077.6	68.9
0°-60°	1442.1	92.2
0°-90°	1564.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1564.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1365	1365	1365	1365	1365	
5°	1343	1360	1338	1325	1330	127
15°	1273	1241	1089	973	930	358
25°	1141	1007	718	525	470	525
35°	970	731	371	202	181	606
45°	778	462	152	99	84	600
55°	579	219	65	40	35	517
65°	376	80	23	18	17	374
75°	182	17	10	8	7	194
85°	27	2	3	2	2	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1364.8	1364.8	1364.8	1364.8	1364.8
2.5°	1349.7	1369.8	1353.1	1353.1	1356.4
5°	1343.1	1359.8	1338.0	1324.7	1329.7
7.5°	1333.0	1344.7	1299.6	1259.4	1256.1
10°	1318.0	1323.0	1241.0	1179.1	1162.4
12.5°	1296.2	1284.5	1169.1	1082.1	1053.7
15°	1272.8	1241.0	1088.8	973.4	929.9
17.5°	1244.4	1187.5	1000.2	859.7	806.2
20°	1212.6	1132.3	908.2	740.9	682.4
22.5°	1177.5	1070.4	812.9	628.9	570.3
25°	1140.7	1006.9	717.5	525.2	470.0
27.5°	1102.2	940.0	623.9	431.5	371.3
30°	1057.0	871.4	535.2	341.2	286.0
32.5°	1015.2	799.5	453.3	264.3	217.4
35°	970.1	730.9	371.3	202.4	180.6
37.5°	923.2	662.3	299.4	170.6	152.2
40°	876.4	593.8	234.2	143.8	127.1
42.5°	827.9	526.9	180.6	120.4	103.7
45°	777.7	461.6	152.2	98.7	83.6
47.5°	727.6	396.4	127.1	78.6	66.9
50°	677.4	334.5	105.4	61.9	53.5
52.5°	628.9	276.0	83.6	50.2	43.5
55°	578.7	219.1	65.2	40.1	35.1
57.5°	528.5	170.6	50.2	33.5	30.1
60°	480.0	128.8	38.5	26.8	25.1
62.5°	429.8	103.7	30.1	21.7	20.1
65°	376.3	80.3	23.4	18.4	16.7
67.5°	327.8	58.5	18.4	15.1	13.4
70°	277.6	40.1	15.1	13.4	11.7
72.5°	229.1	25.1	11.7	10.0	10.0
75°	182.3	16.7	10.0	8.4	6.7
77.5°	138.8	10.0	6.7	6.7	5.0
80°	97.0	6.7	5.0	5.0	5.0
82.5°	60.2	5.0	3.3	3.3	3.3
85°	26.8	1.7	3.3	1.7	1.7
87.5°	5.0	1.7	1.7	1.7	1.7
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	19.55	20.87	19.92	21.18	21.50	5.87	7.19	6.24	7.50	7.82
	3H	22.02	23.19	22.40	23.52	23.89	6.72	7.89	7.10	8.22	8.59
	4H	22.98	24.07	23.38	24.42	24.80	7.00	8.09	7.40	8.44	8.82
	6H	23.66	24.67	24.08	25.04	25.43	7.18	8.19	7.60	8.56	8.95
	8H	23.86	24.81	24.29	25.20	25.61	7.26	8.21	7.69	8.60	9.00
	12H	23.94	24.85	24.37	25.23	25.66	7.28	8.19	7.71	8.57	9.00
4H	2H	19.34	20.43	19.74	20.78	21.16	6.44	7.53	6.84	7.88	8.27
	3H	21.82	22.72	22.23	23.12	23.52	7.47	8.37	7.89	8.77	9.17
	4H	22.76	23.56	23.20	23.98	24.43	7.84	8.64	8.28	9.06	9.50
	6H	23.52	24.21	23.98	24.66	25.12	8.13	8.82	8.59	9.27	9.73
	8H	23.76	24.41	24.23	24.85	25.32	8.23	8.87	8.70	9.32	9.79
	12H	23.89	24.46	24.38	24.94	25.42	8.27	8.84	8.76	9.32	9.80
8H	4H	22.63	23.28	23.10	23.72	24.19	8.21	8.86	8.68	9.30	9.77
	6H	23.37	23.89	23.87	24.39	24.87	8.57	9.09	9.07	9.59	10.07
	8H	23.61	24.09	24.14	24.60	25.09	8.70	9.17	9.23	9.69	10.18
	12H	23.77	24.18	24.28	24.67	25.25	8.79	9.20	9.30	9.70	10.27
12H	4H	22.59	23.16	23.07	23.64	24.11	8.33	8.90	8.82	9.38	9.86
	6H	23.31	23.78	23.83	24.30	24.79	8.69	9.16	9.21	9.67	10.16
	8H	23.57	23.99	24.09	24.48	25.05	8.86	9.28	9.38	9.77	10.34