

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: P1439633

Luminaire Tested: S122DR-H1005D950-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439633  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DR-H1005D950-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

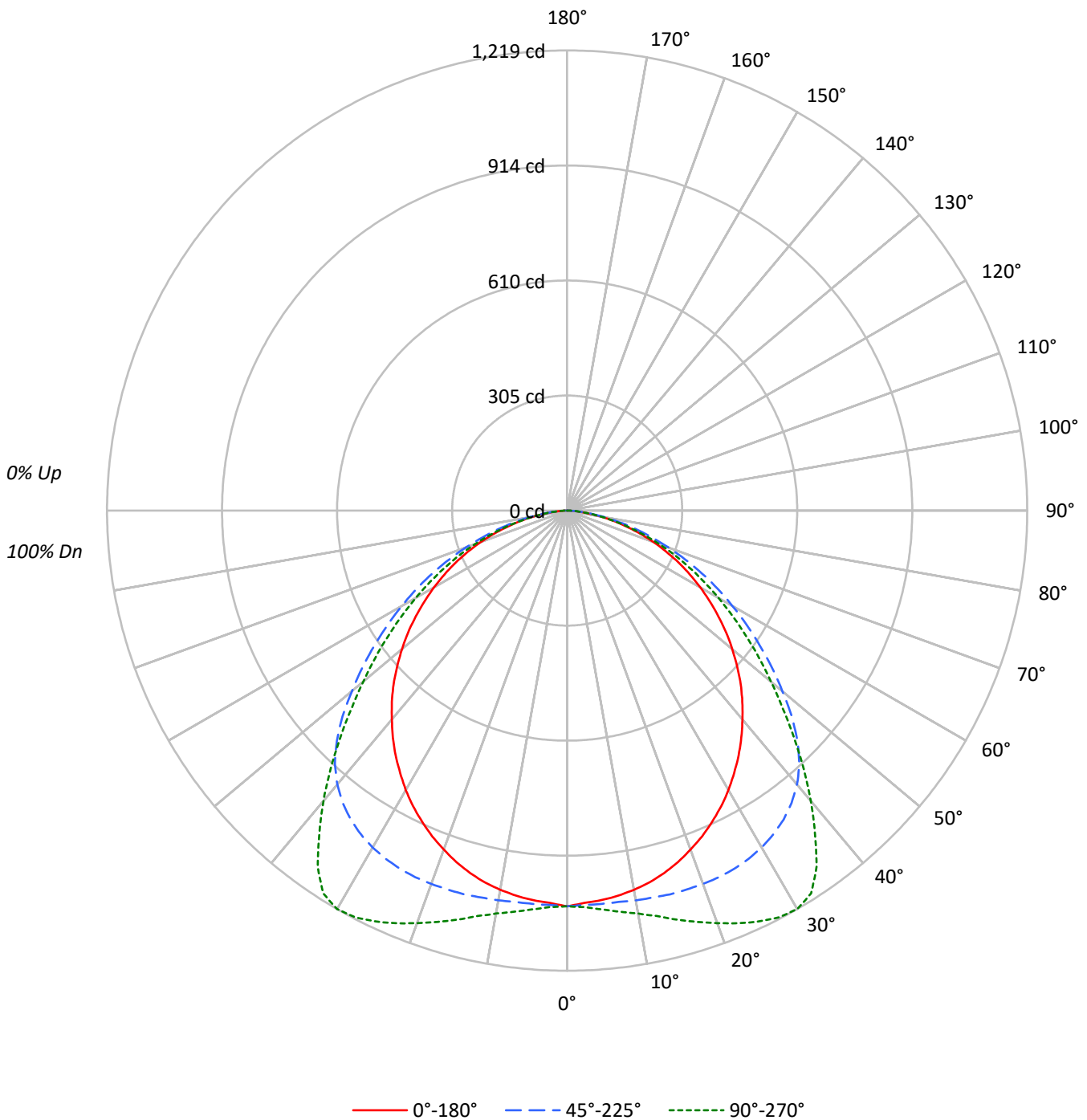
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3224.5 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.6  
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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

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

	0°	45°	90°
0°	19863	19863	19863
5°	19705	19887	20173
10°	19619	20169	20852
15°	19495	20644	22007
20°	19269	21220	23446
25°	19010	21889	25108
30°	18700	22548	26663
35°	18320	23112	26644
40°	17871	23434	24851
45°	17424	23123	22758
50°	16836	21941	20777
55°	16165	20582	19095
60°	15445	19166	17563
65°	14606	17663	16013
70°	13444	15782	14347
75°	11873	13674	12378
80°	9819	10856	9819
85°	6521	7108	6826

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 23305 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.3	3.1
10°-20°	299.5	9.3
20°-30°	485.9	15.1
30°-40°	614.8	19.1
40°-50°	615.8	19.1
50°-60°	515.7	16.0
60°-70°	363.5	11.3
70°-80°	187.5	5.8
80°-90°	41.6	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°	885.6	27.5
0°-40°	1500.5	46.5
0°-60°	2632.0	81.6
0°-90°	3224.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3224.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1036	1054	1046	1051	1061	98
15°	994	1022	1052	1095	1122	280
25°	909	958	1047	1149	1201	419
35°	792	856	999	1129	1152	495
45°	650	718	863	870	849	501
55°	489	549	623	597	578	438
65°	326	363	394	370	357	322
75°	162	179	187	173	169	172
85°	30	33	33	33	31	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1048.4	1048.4	1048.4	1048.4	1048.4
2.5°	1040.2	1056.6	1045.7	1047.1	1051.1
5°	1036.1	1053.9	1045.7	1051.1	1060.7
7.5°	1029.3	1048.4	1045.7	1056.6	1071.6
10°	1019.8	1041.6	1048.4	1067.5	1083.9
12.5°	1008.9	1032.1	1049.8	1079.8	1100.2
15°	993.9	1022.5	1052.5	1094.8	1122.0
17.5°	976.2	1010.2	1052.5	1111.1	1142.5
20°	955.7	995.2	1052.5	1124.8	1162.9
22.5°	933.9	977.5	1051.1	1137.0	1183.4
25°	909.4	958.4	1047.1	1149.3	1201.1
27.5°	883.5	936.6	1040.2	1158.8	1214.7
30°	854.8	912.1	1030.7	1162.9	1218.8
32.5°	823.5	886.2	1017.1	1154.8	1202.5
35°	792.1	856.2	999.3	1128.9	1152.0
37.5°	758.0	824.8	976.2	1078.4	1078.4
40°	722.6	790.7	947.5	1008.9	1004.8
42.5°	687.1	755.3	910.7	940.7	927.1
45°	650.3	718.5	863.0	869.8	849.4
47.5°	610.8	677.6	807.1	797.6	774.4
50°	571.2	636.7	744.4	728.0	704.9
52.5°	531.7	594.4	684.4	661.2	640.8
55°	489.4	549.4	623.1	597.1	578.1
57.5°	448.5	504.4	564.4	535.8	519.4
60°	407.6	458.1	505.8	478.5	463.5
62.5°	366.7	410.4	449.9	422.6	409.0
65°	325.8	362.7	394.0	369.5	357.2
67.5°	283.6	316.3	338.1	316.3	308.1
70°	242.7	268.6	284.9	265.9	259.0
72.5°	201.8	223.6	234.5	219.5	212.7
75°	162.2	178.6	186.8	173.1	169.1
77.5°	124.1	136.3	140.4	130.9	125.4
80°	90.0	96.8	99.5	92.7	90.0
82.5°	55.9	61.4	64.1	58.6	57.3
85°	30.0	32.7	32.7	32.7	31.4
87.5°	10.9	13.6	13.6	13.6	12.3
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	21.87	23.48	22.23	23.80	24.11	22.38	23.99	22.75	24.31	24.62
	3H	23.44	24.89	23.82	25.22	25.58	23.85	25.30	24.23	25.63	25.99
	4H	23.98	25.34	24.37	25.69	26.07	24.34	25.71	24.74	26.06	26.43
	6H	24.32	25.58	24.73	25.95	26.34	24.64	25.91	25.05	26.27	26.66
	8H	24.40	25.61	24.83	26.00	26.40	24.72	25.92	25.14	26.31	26.71
	12H	24.44	25.59	24.87	25.98	26.41	24.75	25.91	25.18	26.29	26.72
4H	2H	22.62	23.99	23.02	24.34	24.71	23.02	24.39	23.42	24.74	25.11
	3H	24.39	25.53	24.80	25.93	26.33	24.69	25.83	25.10	26.23	26.63
	4H	25.04	26.07	25.47	26.48	26.92	25.28	26.31	25.71	26.72	27.16
	6H	25.49	26.38	25.94	26.82	27.28	25.68	26.57	26.13	27.02	27.47
	8H	25.59	26.43	26.06	26.88	27.34	25.78	26.62	26.24	27.06	27.52
	12H	25.66	26.41	26.14	26.88	27.35	25.84	26.59	26.32	27.07	27.54
8H	4H	25.32	26.16	25.78	26.60	27.07	25.54	26.38	26.00	26.82	27.29
	6H	25.86	26.56	26.36	27.05	27.52	26.02	26.72	26.52	27.21	27.68
	8H	26.02	26.65	26.53	27.15	27.64	26.17	26.79	26.68	27.30	27.78
	12H	26.13	26.68	26.63	27.17	27.73	26.27	26.82	26.78	27.31	27.87
12H	4H	25.34	26.09	25.82	26.57	27.04	25.56	26.31	26.04	26.78	27.25
	6H	25.89	26.52	26.40	27.02	27.51	26.05	26.67	26.56	27.18	27.67
	8H	26.10	26.65	26.61	27.14	27.70	26.24	26.79	26.75	27.28	27.84