

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: P1439672

Luminaire Tested: S122DR-S1005D840-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439672
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-S1005D840-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

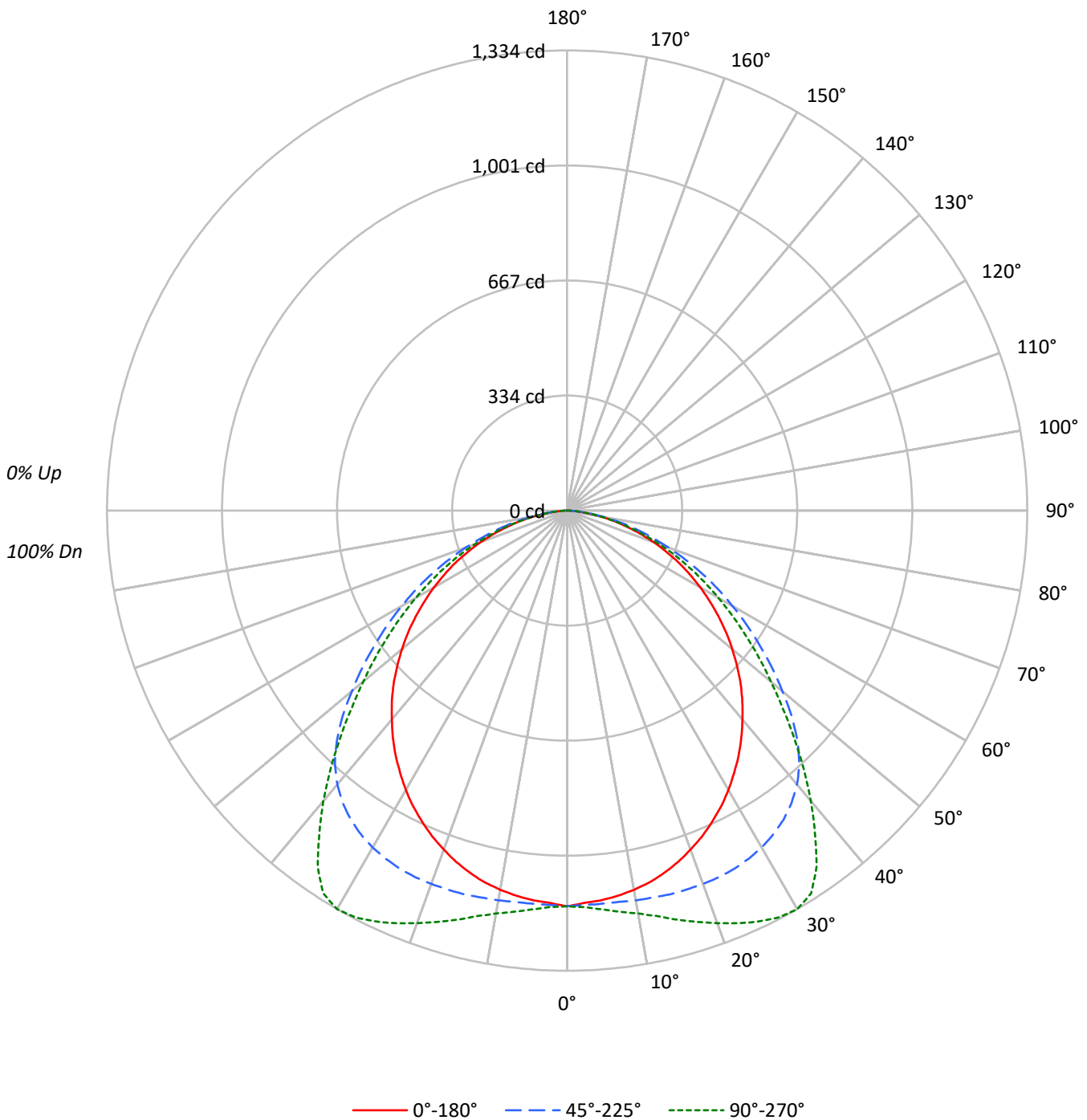
Lumens per Lamp: N/A
Luminaire Lumens: 3528.6 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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

TEST NUMBER: P1439672

CATALOG NUMBER: S122DR-S1005D840-X4F0-XX-UDD-FLB-W

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°	21737	21737	21737
5°	21565	21763	22074
10°	21470	22072	22818
15°	21332	22592	24084
20°	21085	23222	25658
25°	20802	23952	27477
30°	20464	24675	29179
35°	20048	25293	29158
40°	19556	25645	27195
45°	19066	25304	24905
50°	18425	24010	22734
55°	17691	22521	20895
60°	16903	20973	19222
65°	15986	19331	17524
70°	14713	17272	15704
75°	12993	14962	13542
80°	10747	11882	10747
85°	7130	7782	7456

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 25505 cd/sqm



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CATALOG NUMBER: S122DR-S1005D840-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	3.1
10°-20°	327.7	9.3
20°-30°	531.7	15.1
30°-40°	672.8	19.1
40°-50°	673.8	19.1
50°-60°	564.4	16.0
60°-70°	397.7	11.3
70°-80°	205.2	5.8
80°-90°	45.5	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°	969.2	27.5
0°-40°	1642.0	46.5
0°-60°	2880.2	81.6
0°-90°	3528.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3528.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1134	1153	1144	1150	1161	108
15°	1088	1119	1152	1198	1228	307
25°	995	1049	1146	1258	1314	458
35°	867	937	1094	1235	1261	542
45°	712	786	944	952	930	548
55°	536	601	682	654	633	479
65°	357	397	431	404	391	352
75°	178	195	204	190	185	189
85°	33	36	36	36	34	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1147.3	1147.3	1147.3	1147.3	1147.3
2.5°	1138.3	1156.2	1144.3	1145.8	1150.3
5°	1133.9	1153.3	1144.3	1150.3	1160.7
7.5°	1126.4	1147.3	1144.3	1156.2	1172.7
10°	1116.0	1139.8	1147.3	1168.2	1186.1
12.5°	1104.0	1129.4	1148.8	1181.6	1204.0
15°	1087.6	1118.9	1151.8	1198.0	1227.9
17.5°	1068.2	1105.5	1151.8	1215.9	1250.2
20°	1045.8	1089.1	1151.8	1230.8	1272.6
22.5°	1022.0	1069.7	1150.3	1244.3	1295.0
25°	995.1	1048.8	1145.8	1257.7	1314.4
27.5°	966.8	1025.0	1138.3	1268.1	1329.3
30°	935.4	998.1	1127.9	1272.6	1333.8
32.5°	901.1	969.8	1113.0	1263.7	1315.9
35°	866.8	936.9	1093.6	1235.3	1260.7
37.5°	829.5	902.6	1068.2	1180.1	1180.1
40°	790.7	865.3	1036.9	1104.0	1099.6
42.5°	751.9	826.5	996.6	1029.4	1014.5
45°	711.6	786.2	944.4	951.9	929.5
47.5°	668.4	741.5	883.2	872.8	847.4
50°	625.1	696.7	814.6	796.7	771.3
52.5°	581.9	650.5	748.9	723.6	701.2
55°	535.6	601.2	681.8	653.5	632.6
57.5°	490.8	552.0	617.7	586.3	568.4
60°	446.1	501.3	553.5	523.7	507.3
62.5°	401.3	449.1	492.3	462.5	447.6
65°	356.6	396.9	431.2	404.3	390.9
67.5°	310.3	346.1	370.0	346.1	337.2
70°	265.6	293.9	311.8	290.9	283.5
72.5°	220.8	244.7	256.6	240.2	232.7
75°	177.5	195.4	204.4	189.5	185.0
77.5°	135.8	149.2	153.7	143.2	137.3
80°	98.5	105.9	108.9	101.5	98.5
82.5°	61.2	67.1	70.1	64.2	62.7
85°	32.8	35.8	35.8	35.8	34.3
87.5°	11.9	14.9	14.9	14.9	13.4
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	22.18	23.79	22.55	24.11	24.42	22.69	24.31	23.06	24.62	24.94
	3H	23.75	25.21	24.13	25.53	25.89	24.16	25.62	24.54	25.94	26.30
	4H	24.29	25.66	24.69	26.00	26.38	24.66	26.02	25.05	26.37	26.75
	6H	24.63	25.90	25.04	26.26	26.65	24.96	26.22	25.37	26.59	26.98
	8H	24.72	25.92	25.14	26.31	26.71	25.03	26.24	25.45	26.63	27.02
	12H	24.75	25.91	25.18	26.29	26.72	25.06	26.22	25.49	26.60	27.03
4H	2H	22.94	24.30	23.33	24.65	25.03	23.33	24.70	23.73	25.05	25.42
	3H	24.71	25.85	25.12	26.25	26.65	25.00	26.14	25.41	26.54	26.94
	4H	25.36	26.38	25.79	26.80	27.23	25.59	26.62	26.03	27.04	27.47
	6H	25.80	26.69	26.25	27.13	27.59	25.99	26.89	26.45	27.33	27.79
	8H	25.91	26.75	26.37	27.19	27.65	26.09	26.93	26.55	27.37	27.84
	12H	25.97	26.72	26.45	27.20	27.67	26.15	26.90	26.63	27.38	27.85
8H	4H	25.64	26.47	26.10	26.92	27.38	25.85	26.69	26.31	27.13	27.60
	6H	26.18	26.87	26.67	27.36	27.83	26.34	27.03	26.83	27.52	28.00
	8H	26.34	26.96	26.85	27.47	27.95	26.48	27.10	26.99	27.61	28.10
	12H	26.44	26.99	26.95	27.48	28.04	26.58	27.13	27.09	27.62	28.19
12H	4H	25.65	26.40	26.13	26.88	27.35	25.87	26.62	26.35	27.10	27.57
	6H	26.21	26.83	26.72	27.34	27.82	26.36	26.99	26.87	27.50	27.98
	8H	26.41	26.96	26.92	27.45	28.01	26.55	27.10	27.06	27.59	28.16