

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: P1439677

Luminaire Tested: S122DR-S1005D940-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439677
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-S1005D940-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

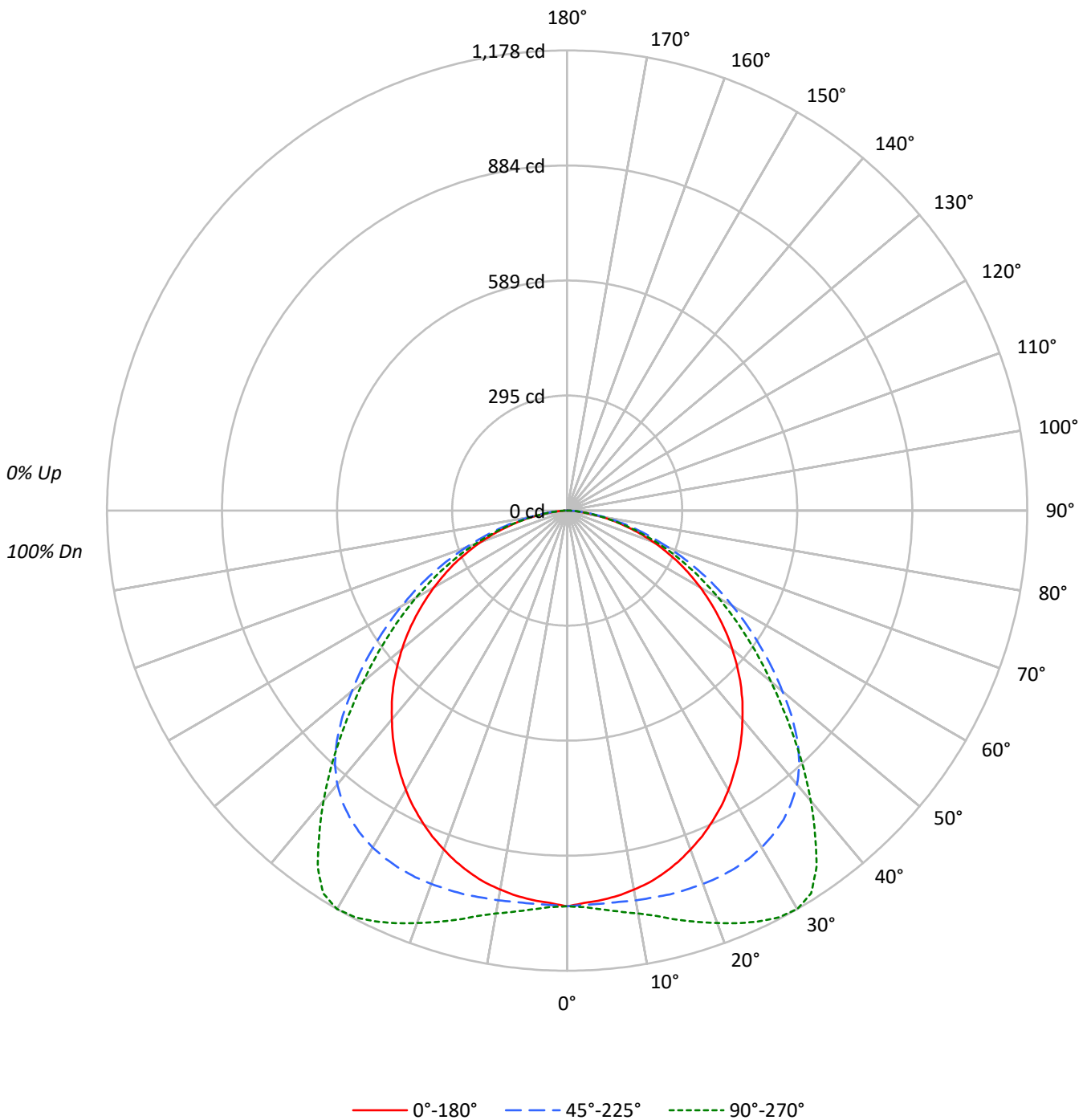
Lumens per Lamp: N/A
Luminaire Lumens: 3115.7 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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	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°	19194	19194	19194
5°	19041	19216	19492
10°	18957	19490	20148
15°	18837	19948	21266
20°	18619	20505	22656
25°	18369	21149	24262
30°	18070	21787	25764
35°	17703	22333	25747
40°	17268	22645	24012
45°	16837	22343	21989
50°	16270	21201	20075
55°	15620	19885	18451
60°	14926	18518	16972
65°	14117	17067	15475
70°	12990	15250	13865
75°	11478	13213	11961
80°	9481	10496	9481
85°	6304	6869	6587

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 22520 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	3.1
10°-20°	289.4	9.3
20°-30°	469.5	15.1
30°-40°	594.1	19.1
40°-50°	595.0	19.1
50°-60°	498.3	16.0
60°-70°	351.2	11.3
70°-80°	181.2	5.8
80°-90°	40.2	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°	855.8	27.5
0°-40°	1449.9	46.5
0°-60°	2543.2	81.6
0°-90°	3115.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3115.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1013	1013	1013	1013	1013	
5°	1001	1018	1010	1016	1025	95
15°	960	988	1017	1058	1084	271
25°	879	926	1012	1110	1161	405
35°	765	827	966	1091	1113	478
45°	628	694	834	840	821	484
55°	473	531	602	577	559	423
65°	315	350	381	357	345	311
75°	157	173	180	167	163	167
85°	29	32	32	32	30	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1013.1	1013.1	1013.1	1013.1	1013.1
2.5°	1005.2	1021.0	1010.4	1011.7	1015.7
5°	1001.2	1018.3	1010.4	1015.7	1024.9
7.5°	994.6	1013.1	1010.4	1021.0	1035.5
10°	985.4	1006.5	1013.1	1031.5	1047.3
12.5°	974.9	997.3	1014.4	1043.4	1063.1
15°	960.4	988.0	1017.0	1057.8	1084.2
17.5°	943.2	976.2	1017.0	1073.7	1104.0
20°	923.5	961.7	1017.0	1086.8	1123.7
22.5°	902.4	944.6	1015.7	1098.7	1143.5
25°	878.7	926.1	1011.7	1110.5	1160.6
27.5°	853.7	905.0	1005.2	1119.8	1173.8
30°	826.0	881.3	995.9	1123.7	1177.7
32.5°	795.7	856.3	982.8	1115.8	1161.9
35°	765.4	827.3	965.6	1090.8	1113.2
37.5°	732.5	797.0	943.2	1042.0	1042.0
40°	698.2	764.1	915.6	974.9	970.9
42.5°	664.0	729.8	880.0	909.0	895.8
45°	628.4	694.3	833.9	840.5	820.7
47.5°	590.2	654.7	779.9	770.7	748.3
50°	552.0	615.2	719.3	703.5	681.1
52.5°	513.8	574.4	661.3	638.9	619.2
55°	472.9	530.9	602.0	577.0	558.6
57.5°	433.4	487.4	545.4	517.7	501.9
60°	393.9	442.6	488.7	462.4	447.9
62.5°	354.4	396.5	434.7	408.4	395.2
65°	314.9	350.4	380.7	357.0	345.2
67.5°	274.0	305.6	326.7	305.6	297.7
70°	234.5	259.5	275.3	256.9	250.3
72.5°	195.0	216.0	226.6	212.1	205.5
75°	156.8	172.6	180.5	167.3	163.4
77.5°	119.9	131.7	135.7	126.5	121.2
80°	86.9	93.5	96.2	89.6	86.9
82.5°	54.0	59.3	61.9	56.6	55.3
85°	29.0	31.6	31.6	31.6	30.3
87.5°	10.5	13.2	13.2	13.2	11.9
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	21.75	23.36	22.11	23.68	23.99	22.26	23.88	22.63	24.19	24.50
	3H	23.32	24.77	23.70	25.10	25.46	23.73	25.18	24.11	25.51	25.87
	4H	23.86	25.22	24.26	25.57	25.95	24.22	25.59	24.62	25.94	26.31
	6H	24.20	25.46	24.61	25.83	26.22	24.52	25.79	24.94	26.15	26.54
	8H	24.28	25.49	24.71	25.88	26.28	24.60	25.80	25.02	26.19	26.59
	12H	24.32	25.48	24.75	25.86	26.29	24.63	25.79	25.06	26.17	26.60
4H	2H	22.50	23.87	22.90	24.22	24.59	22.90	24.27	23.30	24.62	24.99
	3H	24.28	25.41	24.69	25.81	26.21	24.57	25.71	24.98	26.11	26.51
	4H	24.92	25.95	25.35	26.36	26.80	25.16	26.19	25.59	26.60	27.04
	6H	25.37	26.26	25.82	26.70	27.16	25.56	26.46	26.01	26.90	27.35
	8H	25.48	26.31	25.94	26.76	27.22	25.66	26.50	26.12	26.94	27.41
	12H	25.54	26.29	26.02	26.76	27.23	25.72	26.47	26.20	26.95	27.42
8H	4H	25.20	26.04	25.67	26.49	26.95	25.42	26.26	25.88	26.70	27.17
	6H	25.74	26.44	26.24	26.93	27.40	25.90	26.60	26.40	27.09	27.56
	8H	25.90	26.53	26.41	27.03	27.52	26.05	26.67	26.56	27.18	27.66
	12H	26.01	26.56	26.51	27.05	27.61	26.15	26.70	26.66	27.19	27.75
12H	4H	25.22	25.97	25.70	26.45	26.92	25.44	26.19	25.92	26.66	27.13
	6H	25.77	26.40	26.28	26.90	27.39	25.93	26.56	26.44	27.06	27.55
	8H	25.98	26.53	26.49	27.02	27.58	26.12	26.67	26.63	27.16	27.72