

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: P1439631

Luminaire Tested: S122DR-H1005D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439631
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-H1005D935-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

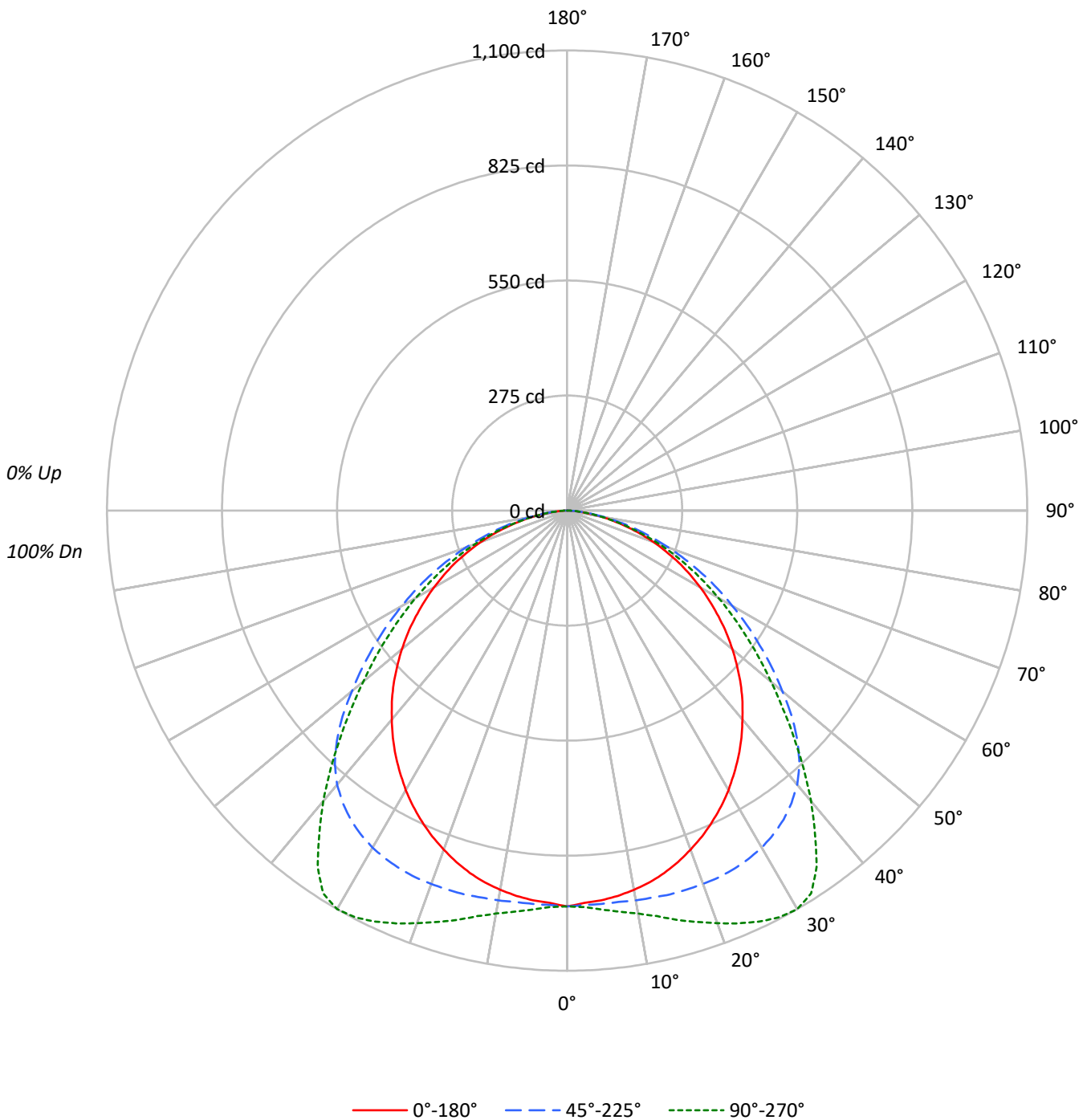
Lumens per Lamp: N/A
Luminaire Lumens: 2910.1 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
Input Voltage (V): 120
Input Current (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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CATALOG NUMBER: S122DR-H1005D935-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°	17927	17927	17927
5°	17784	17947	18206
10°	17707	18203	18819
15°	17594	18632	19863
20°	17390	19152	21162
25°	17156	19755	22660
30°	16878	20350	24064
35°	16535	20860	24047
40°	16128	21151	22427
45°	15725	20869	20540
50°	15197	19801	18749
55°	14590	18573	17232
60°	13940	17298	15854
65°	13184	15941	14453
70°	12131	14247	12951
75°	10717	12342	11170
80°	8859	9798	8859
85°	5891	6413	6152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 21033 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	3.1
10°-20°	270.3	9.3
20°-30°	438.5	15.1
30°-40°	554.9	19.1
40°-50°	555.7	19.1
50°-60°	465.5	16.0
60°-70°	328.0	11.3
70°-80°	169.2	5.8
80°-90°	37.5	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°	799.3	27.5
0°-40°	1354.2	46.5
0°-60°	2375.4	81.6
0°-90°	2910.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2910.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	946	946	946	946	946	
5°	935	951	944	949	957	89
15°	897	923	950	988	1013	253
25°	821	865	945	1037	1084	378
35°	715	773	902	1019	1040	447
45°	587	648	779	785	767	452
55°	442	496	562	539	522	395
65°	294	327	356	333	322	291
75°	146	161	169	156	153	156
85°	27	30	30	30	28	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	946.2	946.2	946.2	946.2	946.2
2.5°	938.8	953.6	943.7	945.0	948.7
5°	935.1	951.1	943.7	948.7	957.3
7.5°	929.0	946.2	943.7	953.6	967.1
10°	920.4	940.1	946.2	963.4	978.2
12.5°	910.5	931.4	947.4	974.5	993.0
15°	897.0	922.8	949.9	988.0	1012.7
17.5°	881.0	911.8	949.9	1002.8	1031.1
20°	862.5	898.2	949.9	1015.1	1049.6
22.5°	842.9	882.2	948.7	1026.2	1068.0
25°	820.7	865.0	945.0	1037.3	1084.0
27.5°	797.3	845.3	938.8	1045.9	1096.3
30°	771.5	823.2	930.2	1049.6	1100.0
32.5°	743.2	799.8	917.9	1042.2	1085.3
35°	714.9	772.7	901.9	1018.8	1039.7
37.5°	684.1	744.4	881.0	973.3	973.3
40°	652.1	713.7	855.2	910.5	906.8
42.5°	620.1	681.7	821.9	849.0	836.7
45°	586.9	648.4	778.9	785.0	766.6
47.5°	551.2	611.5	728.4	719.8	698.9
50°	515.6	574.6	671.8	657.1	636.1
52.5°	479.9	536.5	617.7	596.8	578.3
55°	441.7	495.9	562.3	538.9	521.7
57.5°	404.8	455.3	509.4	483.6	468.8
60°	367.9	413.4	456.5	431.9	418.4
62.5°	331.0	370.4	406.0	381.4	369.1
65°	294.1	327.3	355.6	333.4	322.4
67.5°	255.9	285.5	305.1	285.5	278.1
70°	219.0	242.4	257.2	239.9	233.8
72.5°	182.1	201.8	211.6	198.1	191.9
75°	146.4	161.2	168.6	156.3	152.6
77.5°	112.0	123.0	126.7	118.1	113.2
80°	81.2	87.4	89.8	83.7	81.2
82.5°	50.4	55.4	57.8	52.9	51.7
85°	27.1	29.5	29.5	29.5	28.3
87.5°	9.8	12.3	12.3	12.3	11.1
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	21.51	23.13	21.88	23.44	23.75	22.03	23.64	22.39	23.95	24.27
	3H	23.08	24.54	23.46	24.86	25.22	23.49	24.95	23.87	25.27	25.63
	4H	23.62	24.99	24.02	25.33	25.71	23.99	25.35	24.39	25.70	26.08
	6H	23.96	25.23	24.37	25.59	25.98	24.29	25.55	24.70	25.92	26.31
	8H	24.05	25.25	24.47	25.64	26.04	24.36	25.57	24.79	25.96	26.36
	12H	24.08	25.24	24.51	25.62	26.05	24.40	25.55	24.82	25.93	26.36
4H	2H	22.27	23.63	22.67	23.98	24.36	22.67	24.03	23.06	24.38	24.76
	3H	24.04	25.18	24.45	25.58	25.98	24.33	25.47	24.74	25.87	26.27
	4H	24.69	25.71	25.12	26.13	26.56	24.93	25.95	25.36	26.37	26.80
	6H	25.13	26.02	25.58	26.47	26.92	25.32	26.22	25.78	26.66	27.12
	8H	25.24	26.08	25.70	26.52	26.98	25.42	26.26	25.88	26.70	27.17
	12H	25.30	26.05	25.78	26.53	27.00	25.48	26.23	25.96	26.71	27.18
8H	4H	24.97	25.81	25.43	26.25	26.71	25.18	26.02	25.64	26.46	26.93
	6H	25.51	26.20	26.00	26.69	27.17	25.67	26.36	26.16	26.85	27.33
	8H	25.67	26.29	26.18	26.80	27.28	25.81	26.43	26.32	26.94	27.43
	12H	25.77	26.32	26.28	26.81	27.37	25.91	26.46	26.42	26.95	27.52
12H	4H	24.98	25.73	25.46	26.21	26.68	25.20	25.95	25.68	26.43	26.90
	6H	25.54	26.16	26.05	26.67	27.15	25.69	26.32	26.20	26.83	27.31
	8H	25.74	26.29	26.25	26.78	27.34	25.88	26.43	26.39	26.92	27.49