

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: P1439626

Luminaire Tested: S122DR-H1005D835-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439626
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-H1005D835-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

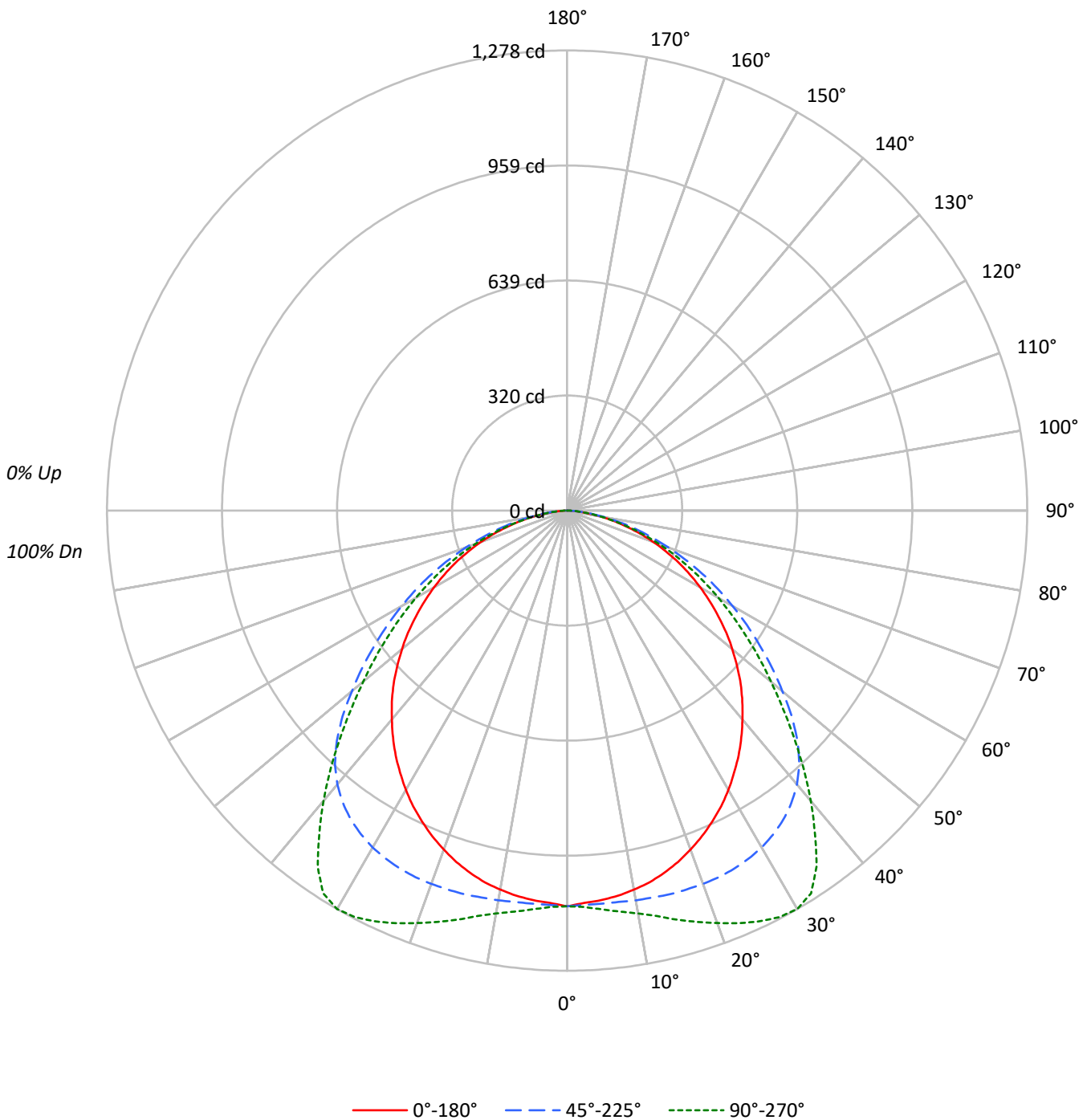
Lumens per Lamp: N/A
Luminaire Lumens: 3380.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1439626

CATALOG NUMBER: S122DR-H1005D835-X4F0-XX-UDD-FLB-W

Luminous Intensity Polar Plot





TEST NUMBER: P1439626

CATALOG NUMBER: S122DR-H1005D835-X4F0-XX-UDD-FLB-W

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	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°	20821	20821	20821
5°	20656	20846	21144
10°	20566	21143	21856
15°	20434	21640	23068
20°	20198	22244	24577
25°	19926	22943	26319
30°	19602	23636	27950
35°	19204	24227	27930
40°	18732	24564	26048
45°	18265	24237	23854
50°	17649	22999	21776
55°	16945	21573	20014
60°	16191	20090	18412
65°	15314	18515	16784
70°	14092	16546	15039
75°	12452	14333	12971
80°	10289	11380	10289
85°	6826	7456	7152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 24430 cd/sqm



TEST NUMBER: P1439626

CATALOG NUMBER: S122DR-H1005D835-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	3.1
10°-20°	313.9	9.3
20°-30°	509.3	15.1
30°-40°	644.5	19.1
40°-50°	645.4	19.1
50°-60°	540.6	16.0
60°-70°	381.0	11.3
70°-80°	196.5	5.8
80°-90°	43.6	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°	928.3	27.5
0°-40°	1572.8	46.5
0°-60°	2758.9	81.6
0°-90°	3380.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3380.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1099	1099	1099	1099	1099	
5°	1086	1105	1096	1102	1112	103
15°	1042	1072	1103	1148	1176	294
25°	953	1005	1098	1205	1259	439
35°	830	898	1048	1183	1208	519
45°	682	753	905	912	890	525
55°	513	576	653	626	606	459
65°	342	380	413	387	374	337
75°	170	187	196	182	177	181
85°	31	34	34	34	33	40
90°	0	0	0	0	0	



TEST NUMBER: P1439626

CATALOG NUMBER: S122DR-H1005D835-X4F0-XX-UDD-FLB-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1099.0	1099.0	1099.0	1099.0	1099.0
2.5°	1090.4	1107.5	1096.1	1097.5	1101.8
5°	1086.1	1104.7	1096.1	1101.8	1111.8
7.5°	1079.0	1099.0	1096.1	1107.5	1123.3
10°	1069.0	1091.8	1099.0	1119.0	1136.1
12.5°	1057.5	1081.8	1100.4	1131.8	1153.3
15°	1041.8	1071.8	1103.3	1147.6	1176.1
17.5°	1023.2	1059.0	1103.3	1164.7	1197.6
20°	1001.8	1043.2	1103.3	1179.0	1219.0
22.5°	978.9	1024.7	1101.8	1191.9	1240.4
25°	953.2	1004.6	1097.5	1204.7	1259.0
27.5°	926.0	981.8	1090.4	1214.7	1273.3
30°	896.0	956.1	1080.4	1219.0	1277.6
32.5°	863.2	928.9	1066.1	1210.4	1260.5
35°	830.3	897.5	1047.5	1183.3	1207.6
37.5°	794.6	864.6	1023.2	1130.4	1130.4
40°	757.4	828.9	993.2	1057.5	1053.2
42.5°	720.3	791.7	954.6	986.1	971.8
45°	681.7	753.1	904.6	911.8	890.3
47.5°	640.2	710.3	846.0	836.0	811.7
50°	598.8	667.4	780.3	763.1	738.8
52.5°	557.3	623.1	717.4	693.1	671.7
55°	513.0	575.9	653.1	625.9	605.9
57.5°	470.2	528.8	591.6	561.6	544.5
60°	427.3	480.2	530.2	501.6	485.9
62.5°	384.4	430.2	471.6	443.0	428.7
65°	341.6	380.1	413.0	387.3	374.4
67.5°	297.3	331.5	354.4	331.5	323.0
70°	254.4	281.5	298.7	278.7	271.5
72.5°	211.5	234.4	245.8	230.1	222.9
75°	170.1	187.2	195.8	181.5	177.2
77.5°	130.0	142.9	147.2	137.2	131.5
80°	94.3	101.5	104.3	97.2	94.3
82.5°	58.6	64.3	67.2	61.5	60.0
85°	31.4	34.3	34.3	34.3	32.9
87.5°	11.4	14.3	14.3	14.3	12.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1439626
 CATALOG NUMBER: S122DR-H1005D835-X4F0-XX-UDD-FLB-W

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	22.03	23.65	22.40	23.96	24.27	22.55	24.16	22.91	24.47	24.79
	3H	23.60	25.06	23.98	25.38	25.74	24.01	25.47	24.39	25.79	26.15
	4H	24.14	25.51	24.54	25.85	26.23	24.51	25.87	24.90	26.22	26.60
	6H	24.48	25.75	24.89	26.11	26.50	24.81	26.07	25.22	26.44	26.83
	8H	24.57	25.77	24.99	26.16	26.56	24.88	26.09	25.30	26.48	26.87
	12H	24.60	25.76	25.03	26.14	26.57	24.91	26.07	25.34	26.45	26.88
4H	2H	22.79	24.15	23.19	24.50	24.88	23.18	24.55	23.58	24.90	25.27
	3H	24.56	25.70	24.97	26.10	26.50	24.85	25.99	25.26	26.39	26.79
	4H	25.21	26.23	25.64	26.65	27.08	25.45	26.47	25.88	26.89	27.32
	6H	25.65	26.54	26.10	26.99	27.44	25.84	26.74	26.30	27.18	27.64
	8H	25.76	26.60	26.22	27.04	27.50	25.94	26.78	26.40	27.22	27.69
	12H	25.82	26.57	26.30	27.05	27.52	26.00	26.75	26.48	27.23	27.70
8H	4H	25.49	26.33	25.95	26.77	27.23	25.70	26.54	26.16	26.98	27.45
	6H	26.03	26.72	26.52	27.21	27.69	26.19	26.88	26.68	27.37	27.85
	8H	26.19	26.81	26.70	27.32	27.80	26.33	26.95	26.84	27.46	27.95
	12H	26.29	26.84	26.80	27.33	27.89	26.43	26.98	26.94	27.47	28.04
12H	4H	25.50	26.26	25.98	26.73	27.20	25.72	26.47	26.20	26.95	27.42
	6H	26.06	26.68	26.57	27.19	27.67	26.21	26.84	26.72	27.35	27.83
	8H	26.26	26.81	26.77	27.30	27.86	26.40	26.95	26.91	27.44	28.01