

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: P1439766

Luminaire Tested: S123DR-H1005D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439766
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2603-719-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DR-H1005D935-X4F0-XX-UDD-FLB-W
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

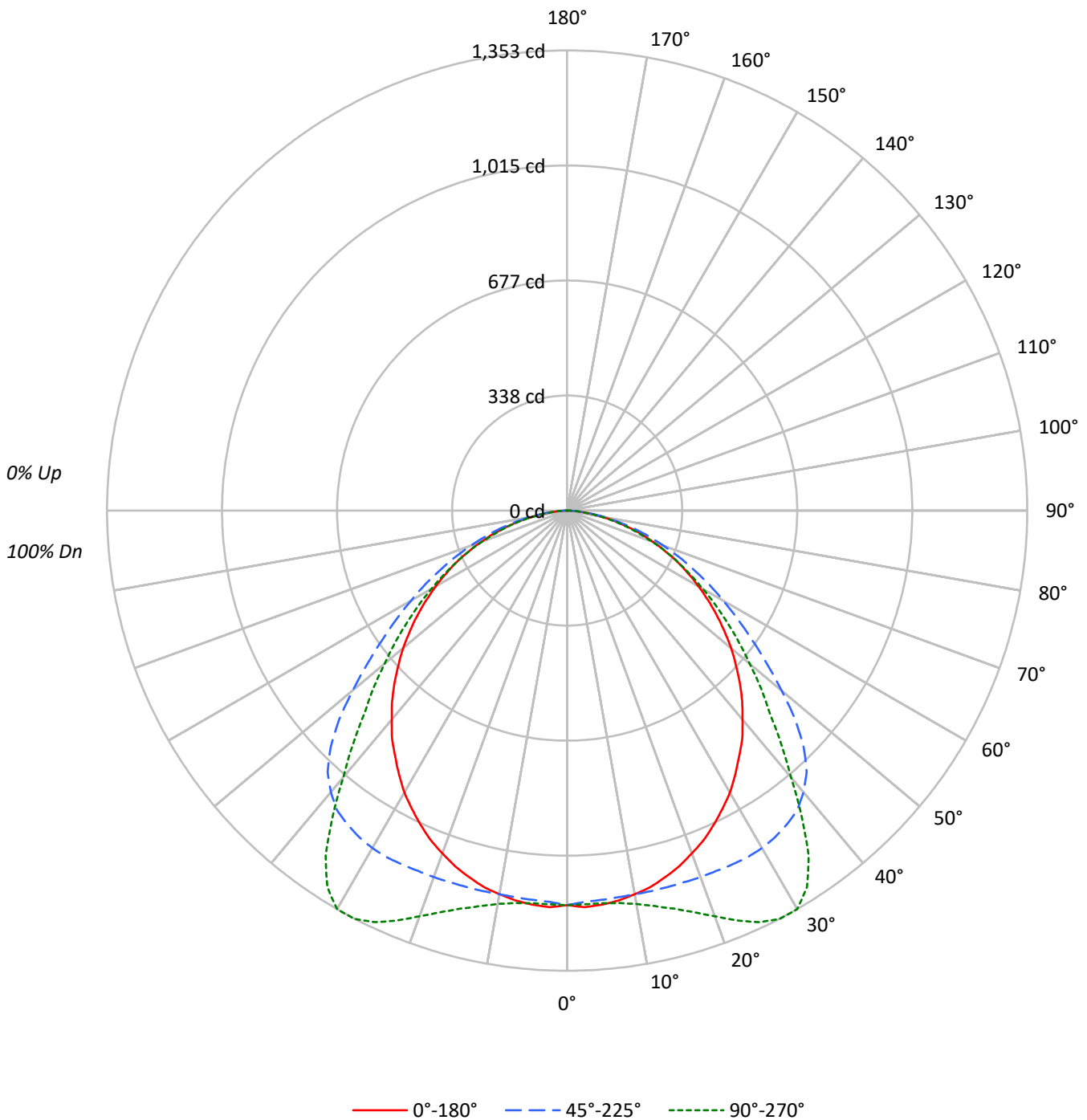
Lumens per Lamp: N/A
Luminaire Lumens: 3508.6 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1439766

CATALOG NUMBER: S123DR-H1005D935-X4F0-XX-UDD-FLB-W

Luminous Intensity Polar Plot





TEST NUMBER: P1439766

CATALOG NUMBER: S123DR-H1005D935-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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71					71			
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60					60			
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52					52			
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13985	13985	13985
5°	14082	13908	14024
10°	14025	14025	14377
15°	13925	14299	15123
20°	13760	14714	16284
25°	13565	15272	17762
30°	13327	15949	18839
35°	12977	16579	18221
40°	12630	17012	16124
45°	12252	16772	14358
50°	11813	15435	13141
55°	11296	13970	12078
60°	10762	12785	11109
65°	10233	11705	10267
70°	9472	10614	9303
75°	8548	9442	8324
80°	7165	7915	6832
85°	5478	5810	5146

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16772 cd/sqm



TEST NUMBER: P1439766

CATALOG NUMBER: S123DR-H1005D935-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.5	3.1
10°-20°	328.2	9.4
20°-30°	537.9	15.3
30°-40°	680.5	19.4
40°-50°	664.8	18.9
50°-60°	546.1	15.6
60°-70°	385.2	11.0
70°-80°	205.3	5.9
80°-90°	50.1	1.4
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°	976.6	27.8
0°-40°	1657.0	47.2
0°-60°	2868.0	81.7
0°-90°	3508.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3508.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1164	1159	1149	1161	1159	110
15°	1116	1122	1146	1197	1212	315
25°	1020	1050	1148	1287	1335	470
35°	882	943	1126	1257	1238	552
45°	719	800	984	888	842	554
55°	537	618	665	597	575	481
65°	359	410	410	374	360	354
75°	184	206	203	184	179	195
85°	40	43	42	38	37	48
90°	0	0	0	0	0	



TEST NUMBER: P1439766

CATALOG NUMBER: S123DR-H1005D935-X4F0-XX-UDD-FLB-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1160.0	1160.0	1160.0	1160.0	1160.0
2.5°	1167.2	1163.6	1151.6	1162.4	1158.8
5°	1163.6	1158.8	1149.2	1161.2	1158.8
7.5°	1156.4	1154.0	1146.8	1164.8	1163.6
10°	1145.6	1144.4	1145.6	1172.0	1174.4
12.5°	1133.6	1134.8	1145.6	1182.8	1191.2
15°	1115.6	1121.6	1145.6	1197.2	1211.6
17.5°	1096.5	1106.0	1145.6	1216.4	1238.0
20°	1072.5	1089.3	1146.8	1236.8	1269.2
22.5°	1048.5	1068.9	1146.8	1264.4	1304.0
25°	1019.7	1049.7	1148.0	1287.2	1335.2
27.5°	988.5	1024.5	1149.2	1305.2	1353.2
30°	957.3	1000.5	1145.6	1312.4	1353.2
32.5°	920.1	972.9	1138.4	1300.4	1312.4
35°	881.7	942.9	1126.4	1257.2	1238.0
37.5°	845.7	910.5	1110.8	1178.0	1132.4
40°	802.5	875.7	1080.9	1077.3	1024.5
42.5°	761.8	838.5	1042.5	975.3	932.1
45°	718.6	800.1	983.7	887.7	842.1
47.5°	673.0	758.2	909.3	804.9	772.6
50°	629.8	715.0	822.9	729.4	700.6
52.5°	583.0	669.4	740.2	662.2	637.0
55°	537.4	617.8	664.6	597.4	574.6
57.5°	491.8	567.4	595.0	536.2	518.2
60°	446.3	514.6	530.2	479.8	460.7
62.5°	401.9	465.5	470.3	425.9	409.1
65°	358.7	410.3	410.3	374.3	359.9
67.5°	313.1	357.5	355.1	321.5	313.1
70°	268.7	305.9	301.1	273.5	263.9
72.5°	226.7	254.3	250.7	229.1	218.3
75°	183.5	206.3	202.7	183.5	178.7
77.5°	142.8	158.3	154.8	141.6	138.0
80°	103.2	115.2	114.0	104.4	98.4
82.5°	69.6	75.6	74.4	68.4	64.8
85°	39.6	43.2	42.0	38.4	37.2
87.5°	15.6	18.0	19.2	18.0	16.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1439766
 CATALOG NUMBER: S123DR-H1005D935-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	20.80	22.41	21.17	22.72	23.04	20.53	22.14	20.90	22.45	22.76
	3H	22.37	23.82	22.75	24.15	24.51	22.05	23.49	22.42	23.82	24.18
	4H	22.92	24.28	23.32	24.63	25.01	22.58	23.94	22.98	24.29	24.66
	6H	23.29	24.55	23.70	24.91	25.30	22.94	24.20	23.35	24.56	24.95
	8H	23.39	24.59	23.81	24.98	25.38	23.03	24.23	23.46	24.62	25.02
	12H	23.44	24.59	23.87	24.98	25.40	23.08	24.23	23.51	24.62	25.05
4H	2H	21.44	22.80	21.84	23.15	23.53	21.23	22.59	21.63	22.94	23.31
	3H	23.25	24.38	23.66	24.78	25.18	22.94	24.08	23.35	24.48	24.88
	4H	23.94	24.96	24.37	25.38	25.81	23.58	24.61	24.01	25.02	25.46
	6H	24.42	25.31	24.87	25.75	26.21	24.04	24.93	24.50	25.38	25.83
	8H	24.55	25.39	25.01	25.83	26.30	24.17	25.00	24.63	25.45	25.91
	12H	24.64	25.39	25.12	25.86	26.33	24.25	25.00	24.73	25.47	25.94
8H	4H	24.20	25.04	24.66	25.48	25.95	23.89	24.72	24.35	25.17	25.63
	6H	24.79	25.49	25.29	25.97	26.45	24.45	25.14	24.94	25.63	26.11
	8H	24.99	25.61	25.50	26.12	26.60	24.63	25.25	25.14	25.76	26.24
	12H	25.13	25.68	25.64	26.17	26.73	24.76	25.31	25.27	25.80	26.36
12H	4H	24.22	24.97	24.70	25.44	25.91	23.92	24.66	24.40	25.14	25.61
	6H	24.83	25.45	25.34	25.96	26.44	24.49	25.12	25.00	25.62	26.11
	8H	25.07	25.62	25.58	26.11	26.67	24.72	25.27	25.23	25.76	26.33