

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: P1217275

Luminaire Tested: S122DRP-H485D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217275  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/9/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DRP-H485D835-X4F0-XX-UDD-G-W  
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

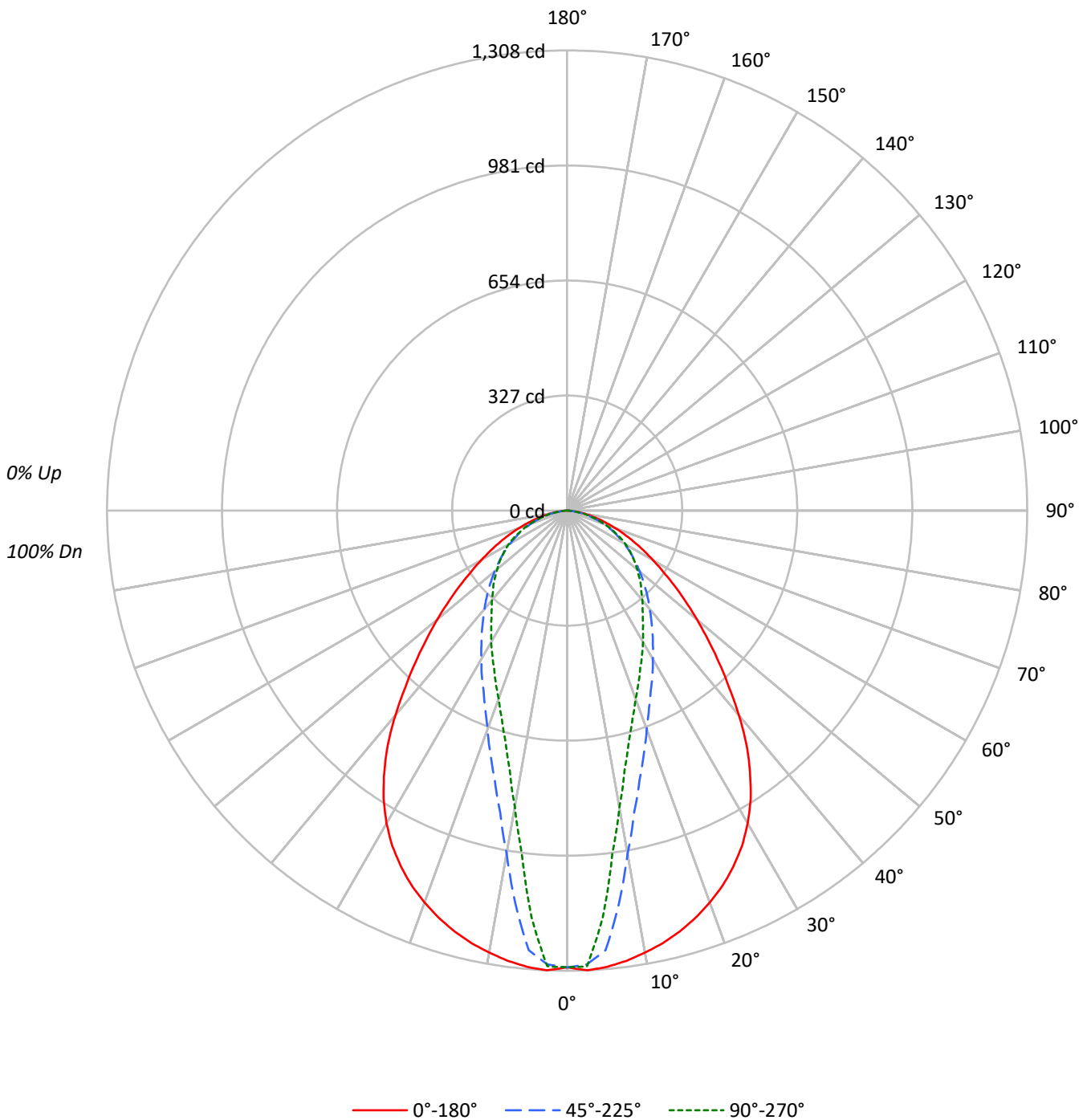
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1744.9 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P1217275

CATALOG NUMBER: S122DRP-H485D835-X4F0-XX-UDD-G-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1217275

CATALOG NUMBER: S122DRP-H485D835-X4F0-XX-UDD-G-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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89				87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77				75	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67				65	
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59				57	
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52				50	
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47				45	
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43				41	
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39				37	
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36				34	
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33				31	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	24599	24599	24599
5°	24758	23856	22092
10°	24536	19052	16470
15°	24286	15570	13298
20°	23898	13329	11472
25°	23348	11767	10293
30°	22463	10669	9440
35°	20961	9776	8678
40°	18796	9030	8226
45°	16352	8440	7931
50°	14195	7926	7646
55°	12284	7495	7452
60°	10651	7059	7264
65°	9320	6621	6863
70°	8027	6077	6304
75°	6691	5358	5556
80°	5248	4364	4211
85°	3239	2804	2804

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16352 cd/sqm



TEST NUMBER: P1217275

CATALOG NUMBER: S122DRP-H485D835-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.8	6.4
10°-20°	246.5	14.1
20°-30°	302.4	17.3
30°-40°	312.6	17.9
40°-50°	282.3	16.2
50°-60°	228.8	13.1
60°-70°	160.4	9.2
70°-80°	82.7	4.7
80°-90°	17.5	1.0
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°	660.7	37.9
0°-40°	973.3	55.8
0°-60°	1484.3	85.1
0°-90°	1744.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1744.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1302	1299	1254	1198	1162	123
15°	1238	1044	794	708	678	349
25°	1117	742	563	509	492	513
35°	906	548	423	387	375	563
45°	610	395	315	297	296	472
55°	372	270	227	224	226	335
65°	208	167	148	151	153	208
75°	91	79	73	75	76	99
85°	15	13	13	13	13	20
90°	0	0	0	0	0	

TEST NUMBER: P1217275

CATALOG NUMBER: S122DRP-H485D835-X4F0-XX-UDD-G-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1298.4	1298.4	1298.4	1298.4	1298.4
2.5°	1307.9	1303.2	1291.0	1302.5	1296.4
5°	1301.8	1299.1	1254.4	1198.2	1161.6
7.5°	1291.0	1281.5	1127.1	1020.7	984.8
10°	1275.4	1228.0	990.3	891.4	856.1
12.5°	1259.2	1147.4	879.9	787.1	755.2
15°	1238.2	1043.8	793.8	707.8	678.0
17.5°	1213.8	953.7	725.4	642.8	619.1
20°	1185.3	875.8	661.1	588.6	569.0
22.5°	1154.2	810.1	607.6	548.6	530.3
25°	1116.9	741.7	562.9	509.4	492.4
27.5°	1075.6	689.5	525.6	475.5	461.3
30°	1026.8	638.7	487.7	443.0	431.5
32.5°	971.3	591.3	453.8	414.5	401.0
35°	906.3	548.0	422.7	386.8	375.2
37.5°	837.2	505.3	392.9	361.7	352.2
40°	760.0	468.0	365.1	337.3	332.6
42.5°	680.7	430.8	340.0	316.3	312.2
45°	610.3	394.9	315.0	297.3	296.0
47.5°	541.9	362.4	291.9	278.4	277.0
50°	481.6	328.5	268.9	260.1	259.4
52.5°	424.0	298.7	247.2	242.5	243.8
55°	371.9	270.3	226.9	224.2	225.6
57.5°	323.8	243.8	206.6	207.3	209.3
60°	281.1	216.7	186.3	189.0	191.7
62.5°	243.8	191.7	166.6	170.7	173.4
65°	207.9	166.6	147.7	151.0	153.1
67.5°	176.1	142.9	128.7	132.8	133.4
70°	144.9	121.2	109.7	113.8	113.8
72.5°	117.9	98.9	91.4	93.5	94.1
75°	91.4	78.6	73.2	75.2	75.9
77.5°	69.1	59.6	55.5	57.6	56.9
80°	48.1	42.0	40.0	39.3	38.6
82.5°	29.8	26.4	24.4	25.1	24.4
85°	14.9	12.9	12.9	12.9	12.9
87.5°	4.7	4.7	4.7	4.7	4.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217275  
 CATALOG NUMBER: S122DRP-H485D835-X4F0-XX-UDD-G-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	19.62	21.12	19.99	21.44	21.75	18.12	19.62	18.49	19.94	20.25
	3H	21.21	22.56	21.59	22.88	23.25	19.84	21.18	20.21	21.51	21.87
	4H	21.73	23.00	22.13	23.35	23.73	20.42	21.68	20.82	22.03	22.41
	6H	22.06	23.23	22.47	23.59	23.99	20.77	21.93	21.18	22.30	22.69
	8H	22.14	23.25	22.56	23.64	24.04	20.84	21.95	21.27	22.34	22.74
	12H	22.16	23.22	22.59	23.61	24.04	20.87	21.93	21.30	22.32	22.74
4H	2H	19.93	21.20	20.33	21.55	21.92	18.68	19.95	19.08	20.30	20.67
	3H	21.71	22.76	22.13	23.16	23.56	20.60	21.65	21.01	22.05	22.45
	4H	22.34	23.29	22.78	23.70	24.14	21.30	22.24	21.73	22.66	23.09
	6H	22.78	23.60	23.24	24.04	24.50	21.75	22.57	22.21	23.01	23.47
	8H	22.88	23.65	23.35	24.09	24.56	21.85	22.62	22.32	23.06	23.53
	12H	22.94	23.62	23.42	24.10	24.57	21.91	22.59	22.39	23.07	23.54
8H	4H	22.49	23.26	22.96	23.70	24.17	21.54	22.30	22.00	22.75	23.21
	6H	23.00	23.63	23.50	24.12	24.60	22.07	22.71	22.57	23.20	23.67
	8H	23.15	23.71	23.66	24.22	24.71	22.23	22.79	22.74	23.30	23.79
	12H	23.24	23.73	23.75	24.23	24.79	22.32	22.82	22.83	23.31	23.88
12H	4H	22.49	23.18	22.97	23.65	24.13	21.55	22.23	22.03	22.71	23.18
	6H	23.00	23.57	23.52	24.08	24.57	22.10	22.66	22.61	23.17	23.66
	8H	23.19	23.69	23.70	24.18	24.74	22.29	22.79	22.80	23.28	23.84