

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: P1217370

Luminaire Tested: S124DRP-H485D935-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217370
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-H485D935-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

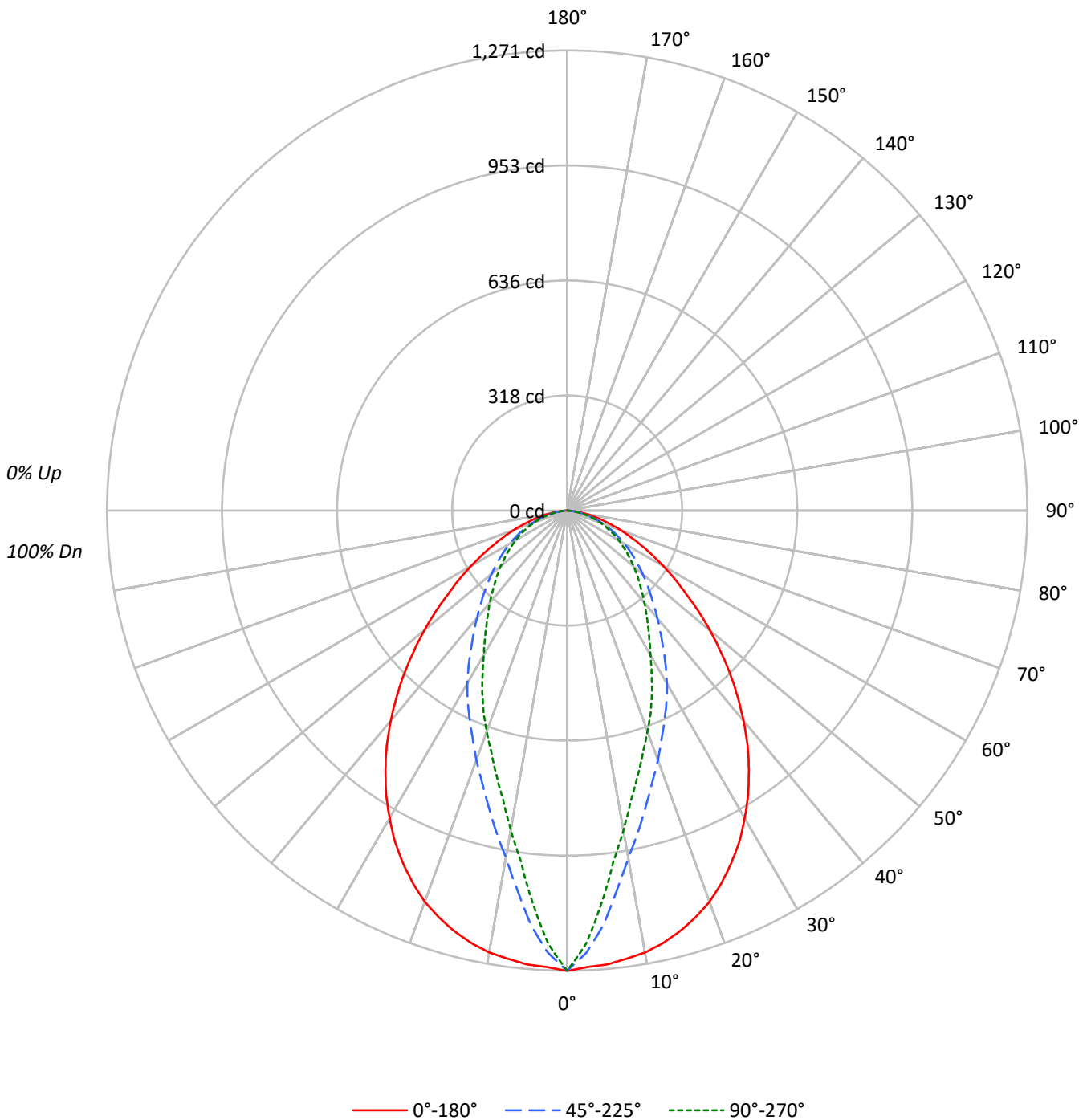
Lumens per Lamp: N/A
Luminaire Lumens: 1782.7 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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: P1217370

CATALOG NUMBER: S124DRP-H485D935-X4F0-XX-UDD-G-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	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11238	11238	11238
5°	11172	10193	9661
10°	11125	8738	8040
15°	11010	7711	6916
20°	10816	6899	6109
25°	10472	6208	5411
30°	10011	5628	4697
35°	9442	4990	4205
40°	8746	4470	3831
45°	7950	4066	3535
50°	7082	3741	3303
55°	6178	3478	3089
60°	5423	3236	2911
65°	4695	2985	2718
70°	4066	2707	2502
75°	3385	2391	2200
80°	2622	1940	1797
85°	1643	1309	1197

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7950 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	6.0
10°-20°	252.8	14.2
20°-30°	323.0	18.1
30°-40°	328.0	18.4
40°-50°	290.8	16.3
50°-60°	228.5	12.8
60°-70°	155.6	8.7
70°-80°	79.9	4.5
80°-90°	17.7	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°	682.1	38.3
0°-40°	1010.2	56.7
0°-60°	1529.5	85.8
0°-90°	1782.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1782.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1271	1271	1271	1271	1271	
5°	1259	1227	1148	1104	1089	119
15°	1203	1004	842	773	756	339
25°	1074	787	636	575	555	493
35°	875	596	462	404	390	546
45°	636	429	325	292	283	490
55°	401	286	226	205	200	362
65°	224	174	143	133	130	225
75°	99	82	70	67	64	106
85°	16	15	13	13	12	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1271.1	1271.1	1271.1	1271.1	1271.1
2.5°	1262.1	1263.8	1221.8	1206.7	1197.8
5°	1258.8	1226.9	1148.5	1104.3	1088.6
7.5°	1248.7	1179.3	1055.6	994.6	978.4
10°	1239.2	1125.0	973.3	912.9	895.5
12.5°	1223.5	1065.1	907.3	837.9	817.2
15°	1202.8	1004.1	842.4	773.0	755.6
17.5°	1178.2	945.9	783.6	717.0	698.0
20°	1149.6	892.2	733.2	664.9	649.3
22.5°	1113.8	839.0	681.7	620.2	602.8
25°	1073.5	787.0	636.4	575.4	554.7
27.5°	1030.4	736.6	594.4	526.7	504.9
30°	980.6	688.4	551.3	480.2	460.1
32.5°	930.2	640.9	506.0	438.8	422.6
35°	874.8	596.1	462.3	403.6	389.6
37.5°	818.9	553.0	423.1	371.6	359.3
40°	757.8	511.0	387.3	342.0	331.9
42.5°	696.8	469.0	354.9	315.7	306.2
45°	635.8	429.3	325.2	291.6	282.7
47.5°	574.3	390.1	297.8	268.1	260.8
50°	514.9	353.2	272.0	246.3	240.1
52.5°	457.3	318.5	247.4	225.6	218.8
55°	400.8	286.0	225.6	205.4	200.4
57.5°	352.6	255.8	203.7	186.4	182.5
60°	306.7	226.7	183.0	168.5	164.6
62.5°	263.6	199.8	162.3	150.6	147.8
65°	224.4	173.5	142.7	132.7	129.9
67.5°	188.6	149.4	122.6	115.3	113.1
70°	157.3	125.4	104.7	98.5	96.8
72.5°	125.9	102.4	86.8	82.3	80.6
75°	99.1	81.7	70.0	66.6	64.4
77.5°	74.4	62.1	53.7	50.9	49.3
80°	51.5	44.2	38.1	36.9	35.3
82.5°	32.5	28.0	24.6	24.1	22.4
85°	16.2	15.1	12.9	12.9	11.8
87.5°	5.6	5.0	5.0	5.0	4.5
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	17.31	18.80	17.68	19.11	19.43	14.64	16.12	15.00	16.44	16.75
	3H	18.90	20.24	19.28	20.56	20.93	16.23	17.57	16.61	17.90	18.26
	4H	19.43	20.68	19.83	21.03	21.41	16.79	18.04	17.19	18.39	18.77
	6H	19.76	20.92	20.18	21.28	21.68	17.15	18.30	17.56	18.67	19.06
	8H	19.84	20.94	20.27	21.33	21.73	17.24	18.33	17.66	18.72	19.12
	12H	19.87	20.92	20.30	21.30	21.73	17.27	18.32	17.70	18.70	19.13
4H	2H	17.54	18.79	17.94	19.14	19.52	15.31	16.56	15.71	16.91	17.29
	3H	19.32	20.36	19.73	20.76	21.16	17.10	18.14	17.51	18.54	18.94
	4H	19.96	20.89	20.40	21.31	21.75	17.76	18.69	18.20	19.11	19.55
	6H	20.41	21.22	20.87	21.66	22.12	18.22	19.03	18.68	19.47	19.93
	8H	20.52	21.28	20.98	21.72	22.19	18.34	19.09	18.80	19.54	20.00
	12H	20.58	21.25	21.06	21.73	22.20	18.40	19.07	18.88	19.55	20.02
8H	4H	20.07	20.82	20.53	21.27	21.74	18.06	18.82	18.53	19.26	19.73
	6H	20.58	21.21	21.08	21.70	22.18	18.61	19.23	19.11	19.73	20.20
	8H	20.74	21.30	21.25	21.81	22.30	18.78	19.34	19.29	19.85	20.34
	12H	20.84	21.33	21.35	21.83	22.39	18.89	19.38	19.40	19.87	20.44
12H	4H	20.06	20.73	20.54	21.21	21.68	18.09	18.76	18.57	19.24	19.71
	6H	20.58	21.14	21.09	21.65	22.14	18.65	19.21	19.16	19.72	20.21
	8H	20.77	21.26	21.28	21.76	22.32	18.86	19.35	19.37	19.85	20.41