

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: P1217420

Luminaire Tested: S124DRP-S675D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217420  
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-S675D840-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

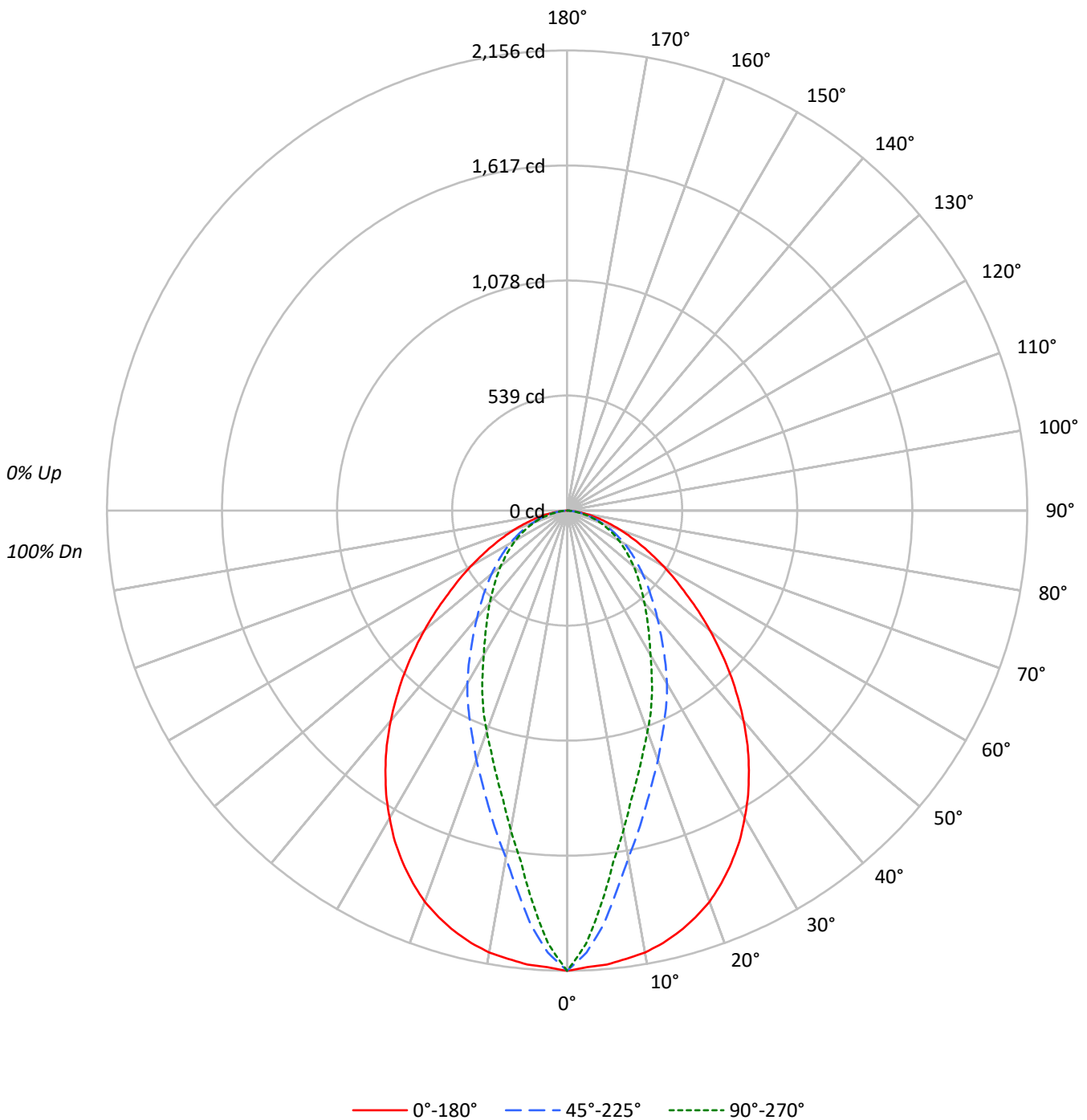
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3023.9 lumens  
Efficiency: N/A  
Efficacy: 114.5 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): 26.4  
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: P1217420

CATALOG NUMBER: S124DRP-S675D840-X4F0-XX-UDD-G-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1217420

CATALOG NUMBER: S124DRP-S675D840-X4F0-XX-UDD-G-W

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33

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

	0°	45°	90°
0°	19064	19064	19064
5°	18951	17291	16389
10°	18871	14823	13638
15°	18675	13079	11732
20°	18348	11703	10362
25°	17765	10531	9179
30°	16982	9548	7967
35°	16017	8464	7132
40°	14837	7583	6498
45°	13486	6897	5995
50°	12015	6346	5602
55°	10479	5898	5239
60°	9200	5490	4935
65°	7964	5065	4609
70°	6897	4588	4247
75°	5739	4055	3730
80°	4445	3289	3045
85°	2790	2211	2019

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13486 cd/sqm



TEST NUMBER: P1217420

CATALOG NUMBER: S124DRP-S675D840-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.5	6.0
10°-20°	428.8	14.2
20°-30°	547.9	18.1
30°-40°	556.4	18.4
40°-50°	493.3	16.3
50°-60°	387.6	12.8
60°-70°	263.9	8.7
70°-80°	135.5	4.5
80°-90°	30.0	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°	1157.1	38.3
0°-40°	1713.6	56.7
0°-60°	2594.4	85.8
0°-90°	3023.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3023.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2156	2156	2156	2156	2156	
5°	2135	2081	1948	1873	1847	203
15°	2040	1703	1429	1311	1282	575
25°	1821	1335	1080	976	941	837
35°	1484	1011	784	684	661	926
45°	1079	728	552	495	480	831
55°	680	485	383	348	340	614
65°	381	294	242	225	220	381
75°	168	139	119	113	109	180
85°	28	26	22	22	20	37
90°	0	0	0	0	0	



TEST NUMBER: P1217420

CATALOG NUMBER: S124DRP-S675D840-X4F0-XX-UDD-G-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2156.2	2156.2	2156.2	2156.2	2156.2
2.5°	2141.0	2143.8	2072.6	2047.0	2031.8
5°	2135.3	2081.1	1948.2	1873.2	1846.6
7.5°	2118.2	2000.4	1790.6	1687.1	1659.6
10°	2102.0	1908.4	1651.1	1548.5	1519.1
12.5°	2075.5	1806.8	1539.0	1421.3	1386.2
15°	2040.3	1703.3	1428.9	1311.2	1281.7
17.5°	1998.5	1604.5	1329.2	1216.2	1183.9
20°	1950.1	1513.4	1243.8	1127.9	1101.3
22.5°	1889.4	1423.2	1156.4	1052.0	1022.5
25°	1821.0	1334.9	1079.5	976.0	940.9
27.5°	1747.9	1249.4	1008.3	893.4	856.4
30°	1663.4	1167.8	935.2	814.6	780.4
32.5°	1578.0	1087.1	858.3	744.4	716.8
35°	1484.0	1011.1	784.2	684.5	660.8
37.5°	1389.0	938.0	717.8	630.4	609.5
40°	1285.5	866.8	657.0	580.1	563.0
42.5°	1182.0	795.6	601.9	535.5	519.3
45°	1078.6	728.2	551.6	494.7	479.5
47.5°	974.1	661.8	505.1	454.8	442.4
50°	873.5	599.1	461.4	417.7	407.3
52.5°	775.7	540.2	419.6	382.6	371.2
55°	679.8	485.2	382.6	348.4	339.9
57.5°	598.1	433.9	345.6	316.2	309.5
60°	520.3	384.5	310.5	285.8	279.1
62.5°	447.2	338.9	275.3	255.4	250.6
65°	380.7	294.3	242.1	225.0	220.3
67.5°	320.0	253.5	207.9	195.6	191.8
70°	266.8	212.7	177.5	167.1	164.3
72.5°	213.6	173.7	147.2	139.6	136.7
75°	168.0	138.6	118.7	113.0	109.2
77.5°	126.3	105.4	91.1	86.4	83.5
80°	87.3	75.0	64.6	62.7	59.8
82.5°	55.1	47.5	41.8	40.8	38.0
85°	27.5	25.6	21.8	21.8	19.9
87.5°	9.5	8.5	8.5	8.5	7.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217420  
 CATALOG NUMBER: S124DRP-S675D840-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	19.15	20.63	19.51	20.95	21.26	16.47	17.96	16.84	18.27	18.59
	3H	20.74	22.07	21.12	22.40	22.76	18.07	19.40	18.45	19.73	20.09
	4H	21.27	22.52	21.67	22.87	23.25	18.63	19.88	19.03	20.23	20.61
	6H	21.60	22.75	22.01	23.12	23.51	18.98	20.14	19.40	20.50	20.90
	8H	21.68	22.78	22.10	23.17	23.57	19.07	20.17	19.50	20.56	20.96
	12H	21.71	22.76	22.14	23.14	23.57	19.11	20.16	19.54	20.54	20.97
4H	2H	19.37	20.62	19.77	20.97	21.35	17.15	18.40	17.55	18.75	19.13
	3H	21.16	22.20	21.57	22.60	23.00	18.94	19.97	19.35	20.37	20.77
	4H	21.80	22.73	22.23	23.15	23.59	19.60	20.53	20.03	20.95	21.39
	6H	22.24	23.05	22.70	23.50	23.96	20.06	20.87	20.51	21.31	21.77
	8H	22.36	23.11	22.82	23.56	24.03	20.17	20.93	20.64	21.37	21.84
	12H	22.41	23.09	22.90	23.57	24.04	20.23	20.91	20.71	21.39	21.86
8H	4H	21.90	22.66	22.37	23.10	23.57	19.90	20.65	20.36	21.10	21.57
	6H	22.42	23.04	22.92	23.54	24.01	20.45	21.07	20.95	21.56	22.04
	8H	22.58	23.13	23.09	23.64	24.13	20.62	21.17	21.13	21.68	22.17
	12H	22.68	23.17	23.19	23.66	24.23	20.72	21.21	21.23	21.71	22.27
12H	4H	21.89	22.57	22.38	23.05	23.52	19.92	20.60	20.40	21.08	21.55
	6H	22.41	22.97	22.93	23.48	23.97	20.49	21.04	21.00	21.55	22.04
	8H	22.61	23.10	23.12	23.59	24.16	20.70	21.19	21.21	21.68	22.25