

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: P1217378

Luminaire Tested: S124DRP-H675D930-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217378  
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-H675D930-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

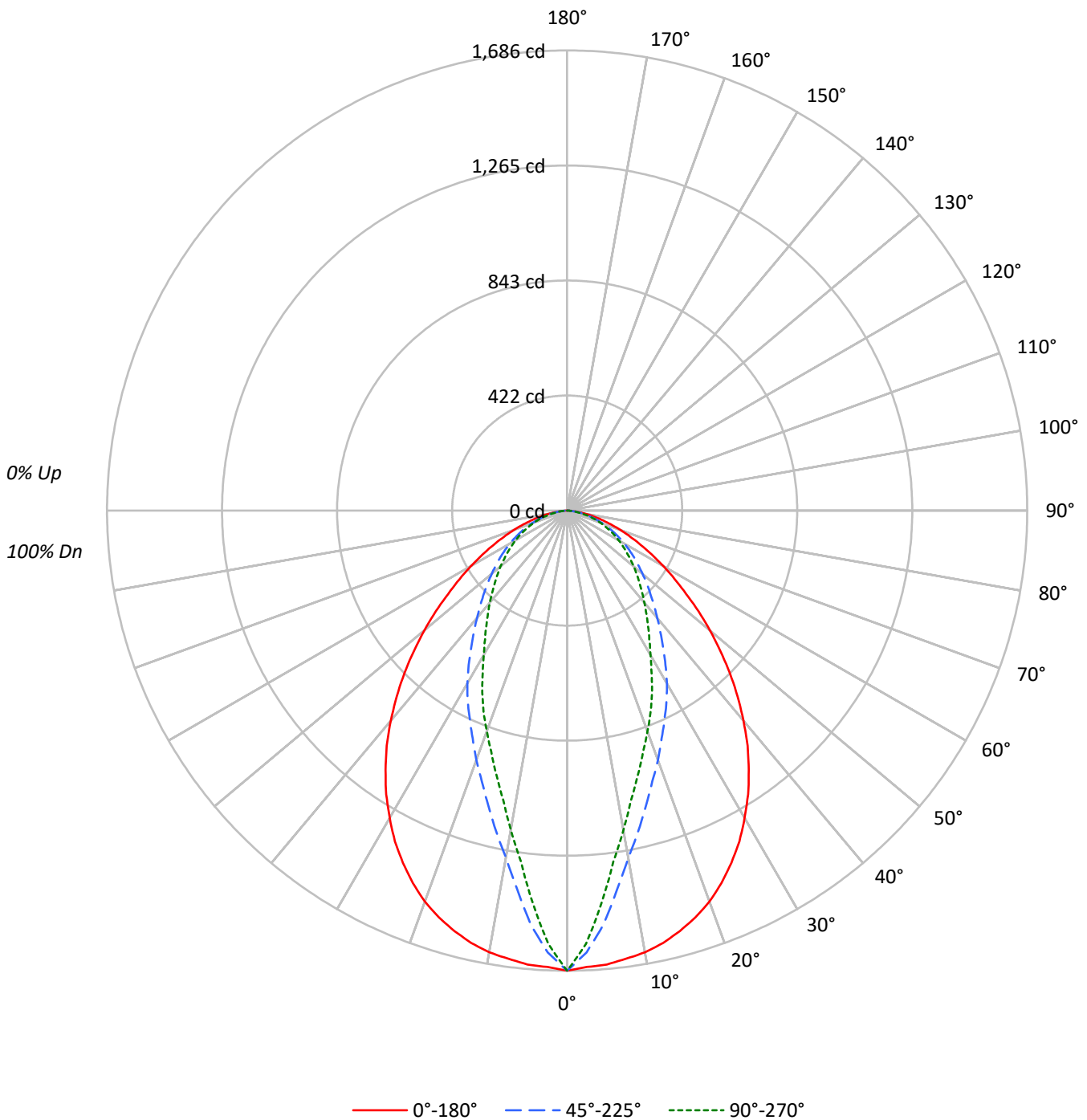
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2364.1 lumens  
Efficiency: N/A  
Efficacy: 99.3 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): 23.8  
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

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### Luminous Intensity Polar Plot





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

RF	20				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°	14904	14904	14904
5°	14815	13518	12813
10°	14754	11589	10662
15°	14600	10225	9172
20°	14345	9149	8101
25°	13889	8234	7176
30°	13276	7464	6229
35°	12522	6617	5576
40°	11599	5928	5081
45°	10543	5393	4686
50°	9393	4961	4380
55°	8193	4610	4096
60°	7193	4292	3858
65°	6226	3960	3603
70°	5392	3588	3319
75°	4489	3170	2917
80°	3478	2571	2383
85°	2181	1735	1583

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10543 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.1	6.0
10°-20°	335.2	14.2
20°-30°	428.3	18.1
30°-40°	435.0	18.4
40°-50°	385.6	16.3
50°-60°	303.0	12.8
60°-70°	206.4	8.7
70°-80°	105.9	4.5
80°-90°	23.5	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°	904.6	38.3
0°-40°	1339.7	56.7
0°-60°	2028.3	85.8
0°-90°	2364.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2364.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1686	1686	1686	1686	1686	
5°	1669	1627	1523	1464	1444	158
15°	1595	1332	1117	1025	1002	449
25°	1424	1044	844	763	736	654
35°	1160	790	613	535	517	724
45°	843	569	431	387	375	650
55°	532	379	299	272	266	480
65°	298	230	189	176	172	298
75°	131	108	93	88	85	141
85°	22	20	17	17	16	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1685.7	1685.7	1685.7	1685.7	1685.7
2.5°	1673.8	1676.0	1620.4	1600.3	1588.4
5°	1669.3	1627.0	1523.1	1464.5	1443.7
7.5°	1656.0	1563.9	1399.9	1319.0	1297.5
10°	1643.4	1491.9	1290.8	1210.6	1187.6
12.5°	1622.6	1412.5	1203.2	1111.2	1083.7
15°	1595.1	1331.6	1117.1	1025.1	1002.1
17.5°	1562.5	1254.4	1039.2	950.8	925.6
20°	1524.6	1183.2	972.4	881.8	861.0
22.5°	1477.1	1112.6	904.1	822.4	799.4
25°	1423.7	1043.6	844.0	763.0	735.6
27.5°	1366.5	976.8	788.3	698.5	669.5
30°	1300.4	913.0	731.1	636.9	610.1
32.5°	1233.6	849.9	671.0	581.9	560.4
35°	1160.2	790.5	613.1	535.2	516.6
37.5°	1085.9	733.4	561.1	492.9	476.5
40°	1005.0	677.7	513.6	453.5	440.2
42.5°	924.1	622.0	470.6	418.6	406.0
45°	843.2	569.3	431.3	386.7	374.8
47.5°	761.6	517.4	394.9	355.5	345.9
50°	682.9	468.4	360.7	326.6	318.4
52.5°	606.4	422.3	328.1	299.1	290.2
55°	531.5	379.3	299.1	272.4	265.7
57.5°	467.6	339.2	270.2	247.2	242.0
60°	406.8	300.6	242.7	223.4	218.2
62.5°	349.6	265.0	215.3	199.7	196.0
65°	297.6	230.1	189.3	175.9	172.2
67.5°	250.1	198.2	162.6	152.9	149.9
70°	208.6	166.3	138.8	130.6	128.4
72.5°	167.0	135.8	115.1	109.1	106.9
75°	131.4	108.4	92.8	88.3	85.4
77.5°	98.7	82.4	71.3	67.5	65.3
80°	68.3	58.6	50.5	49.0	46.8
82.5°	43.1	37.1	32.7	31.9	29.7
85°	21.5	20.0	17.1	17.1	15.6
87.5°	7.4	6.7	6.7	6.7	5.9
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	18.29	19.78	18.66	20.09	20.41	15.62	17.10	15.98	17.42	17.73
	3H	19.88	21.22	20.26	21.54	21.91	17.21	18.55	17.59	18.88	19.24
	4H	20.41	21.66	20.81	22.01	22.39	17.77	19.02	18.17	19.37	19.75
	6H	20.74	21.90	21.16	22.27	22.66	18.13	19.28	18.54	19.65	20.04
	8H	20.82	21.92	21.25	22.31	22.71	18.22	19.31	18.64	19.70	20.10
	12H	20.85	21.90	21.28	22.28	22.71	18.25	19.30	18.68	19.68	20.11
4H	2H	18.52	19.77	18.92	20.12	20.50	16.29	17.54	16.69	17.89	18.27
	3H	20.30	21.34	20.71	21.74	22.14	18.08	19.12	18.49	19.52	19.92
	4H	20.94	21.88	21.38	22.29	22.73	18.74	19.68	19.18	20.09	20.53
	6H	21.39	22.20	21.85	22.64	23.10	19.20	20.01	19.66	20.45	20.91
	8H	21.50	22.26	21.97	22.70	23.17	19.32	20.07	19.78	20.52	20.98
	12H	21.56	22.23	22.04	22.71	23.18	19.38	20.05	19.86	20.53	21.00
8H	4H	21.05	21.80	21.51	22.25	22.72	19.04	19.80	19.51	20.24	20.71
	6H	21.57	22.19	22.06	22.68	23.16	19.59	20.22	20.09	20.71	21.19
	8H	21.72	22.28	22.24	22.79	23.28	19.76	20.32	20.27	20.83	21.32
	12H	21.82	22.31	22.33	22.81	23.37	19.87	20.36	20.38	20.85	21.42
12H	4H	21.04	21.71	21.52	22.19	22.66	19.07	19.74	19.55	20.22	20.69
	6H	21.56	22.12	22.07	22.63	23.12	19.63	20.19	20.14	20.70	21.19
	8H	21.75	22.24	22.26	22.74	23.30	19.84	20.34	20.35	20.83	21.39