

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: P1217348

Luminaire Tested: S124DRP-H1005D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217348  
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-H1005D840-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

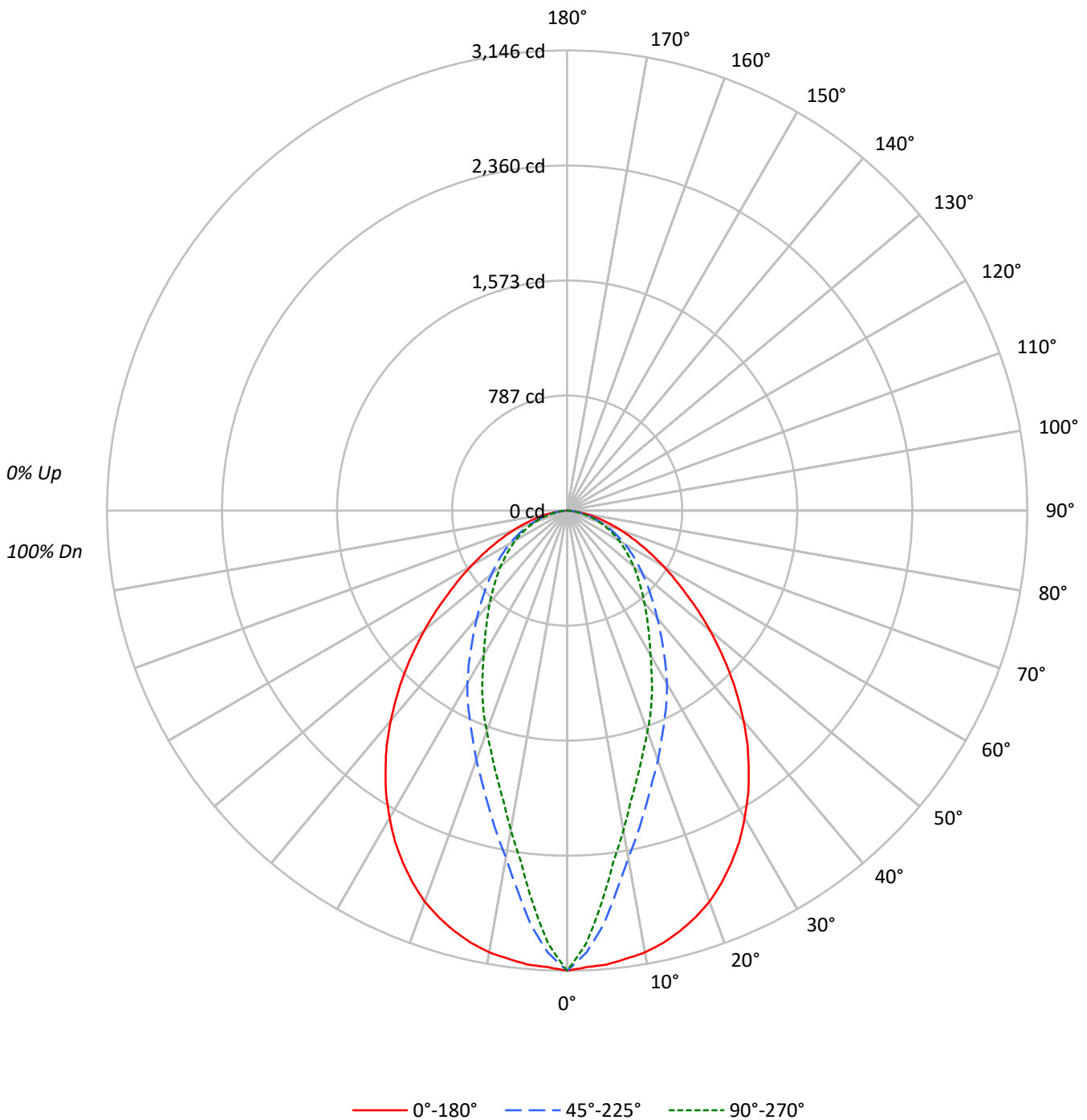
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4411.6 lumens  
Efficiency: N/A  
Efficacy: 120.5 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): 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

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### 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	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	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°	27811	27811	27811
5°	27647	25225	23910
10°	27531	21625	19897
15°	27246	19081	17116
20°	26768	17072	15117
25°	25916	15364	13390
30°	24775	13928	11624
35°	23366	12349	10405
40°	21645	11063	9480
45°	19674	10062	8746
50°	17528	9260	8173
55°	15287	8604	7644
60°	13421	8009	7200
65°	11619	7389	6722
70°	10061	6695	6194
75°	8376	5913	5442
80°	6487	4796	4445
85°	4078	3236	2952

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	263.3	6.0
10°-20°	625.5	14.2
20°-30°	799.3	18.1
30°-40°	811.8	18.4
40°-50°	719.6	16.3
50°-60°	565.5	12.8
60°-70°	385.1	8.7
70°-80°	197.7	4.5
80°-90°	43.8	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°	1688.1	38.3
0°-40°	2499.9	56.7
0°-60°	3785.0	85.8
0°-90°	4411.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4411.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3146	3146	3146	3146	3146	
5°	3115	3036	2842	2733	2694	296
15°	2977	2485	2085	1913	1870	838
25°	2657	1948	1575	1424	1373	1221
35°	2165	1475	1144	999	964	1351
45°	1574	1062	805	722	700	1212
55°	992	708	558	508	496	896
65°	555	429	353	328	321	556
75°	245	202	173	165	159	263
85°	40	37	32	32	29	54
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3145.6	3145.6	3145.6	3145.6	3145.6
2.5°	3123.4	3127.6	3023.7	2986.3	2964.1
5°	3115.1	3036.2	2842.2	2732.8	2694.0
7.5°	3090.2	2918.4	2612.3	2461.3	2421.2
10°	3066.6	2784.1	2408.7	2259.1	2216.2
12.5°	3027.8	2635.9	2245.3	2073.5	2022.3
15°	2976.6	2484.9	2084.6	1912.8	1869.9
17.5°	2915.6	2340.8	1939.1	1774.3	1727.2
20°	2845.0	2207.9	1814.5	1645.5	1606.7
22.5°	2756.4	2076.3	1687.1	1534.7	1491.8
25°	2656.6	1947.5	1574.9	1423.9	1372.6
27.5°	2550.0	1822.8	1471.0	1303.4	1249.4
30°	2426.7	1703.7	1364.3	1188.4	1138.6
32.5°	2302.0	1585.9	1252.1	1085.9	1045.8
35°	2164.9	1475.1	1144.1	998.7	964.0
37.5°	2026.4	1368.5	1047.1	919.7	889.2
40°	1875.4	1264.6	958.5	846.3	821.4
42.5°	1724.5	1160.7	878.2	781.2	757.7
45°	1573.5	1062.4	804.7	721.6	699.5
47.5°	1421.1	965.4	736.9	663.5	645.5
50°	1274.3	874.0	673.2	609.4	594.2
52.5°	1131.6	788.1	612.2	558.2	541.6
55°	991.7	707.8	558.2	508.3	495.9
57.5°	872.6	633.0	504.2	461.2	451.5
60°	759.0	561.0	452.9	416.9	407.2
62.5°	652.4	494.5	401.7	372.6	365.7
65°	555.4	429.4	353.2	328.3	321.3
67.5°	466.8	369.8	303.3	285.3	279.8
70°	389.2	310.3	259.0	243.8	239.6
72.5°	311.6	253.5	214.7	203.6	199.5
75°	245.2	202.2	173.1	164.8	159.3
77.5°	184.2	153.7	133.0	126.0	121.9
80°	127.4	109.4	94.2	91.4	87.3
82.5°	80.3	69.3	60.9	59.6	55.4
85°	40.2	37.4	31.9	31.9	29.1
87.5°	13.9	12.5	12.5	12.5	11.1
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	20.46	21.95	20.82	22.26	22.57	17.78	19.27	18.15	19.58	19.90
	3H	22.05	23.38	22.43	23.71	24.07	19.38	20.71	19.76	21.04	21.41
	4H	22.58	23.83	22.98	24.18	24.56	19.94	21.19	20.34	21.54	21.92
	6H	22.91	24.07	23.32	24.43	24.83	20.30	21.45	20.71	21.82	22.21
	8H	22.99	24.09	23.42	24.48	24.88	20.38	21.48	20.81	21.87	22.27
	12H	23.02	24.07	23.45	24.45	24.88	20.42	21.47	20.85	21.85	22.28
4H	2H	20.69	21.94	21.09	22.29	22.67	18.46	19.71	18.86	20.06	20.44
	3H	22.47	23.51	22.88	23.91	24.31	20.25	21.28	20.66	21.68	22.09
	4H	23.11	24.04	23.54	24.46	24.90	20.91	21.84	21.34	22.26	22.70
	6H	23.56	24.37	24.01	24.81	25.27	21.37	22.18	21.82	22.62	23.08
	8H	23.67	24.42	24.13	24.87	25.34	21.48	22.24	21.95	22.68	23.15
	12H	23.73	24.40	24.21	24.88	25.35	21.54	22.22	22.03	22.70	23.17
8H	4H	23.21	23.97	23.68	24.42	24.88	21.21	21.97	21.67	22.41	22.88
	6H	23.73	24.36	24.23	24.85	25.33	21.76	22.38	22.26	22.87	23.35
	8H	23.89	24.45	24.40	24.96	25.45	21.93	22.49	22.44	23.00	23.48
	12H	23.99	24.48	24.50	24.97	25.54	22.03	22.53	22.54	23.02	23.59
12H	4H	23.21	23.88	23.69	24.36	24.83	21.23	21.91	21.72	22.39	22.86
	6H	23.73	24.28	24.24	24.80	25.28	21.80	22.36	22.31	22.87	23.36
	8H	23.92	24.41	24.43	24.90	25.47	22.01	22.50	22.52	22.99	23.56