

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: P1217372

Luminaire Tested: S124DRP-H485D950-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217372  
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-H485D950-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

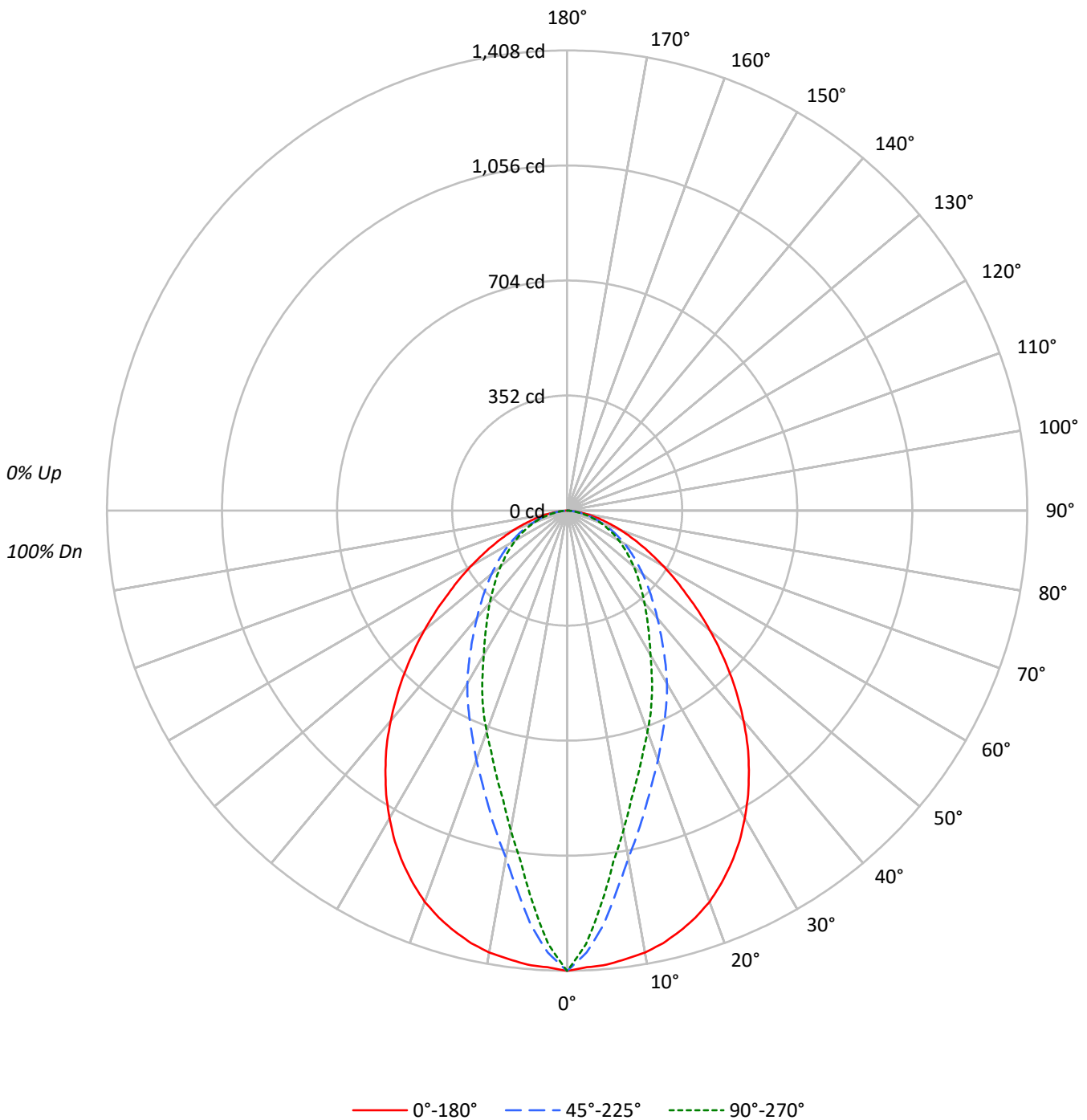
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1975.2 lumens  
Efficiency: N/A  
Efficacy: 114.2 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

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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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87	87	87	87	87	87	87		
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75	75	75	75	75		
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65		
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51	51	51	51	51	51	51		
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45	45	45	45	45	45	45		
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41	41	41	41	41	41	41		
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37	37	37	37	37	37	37		
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34	34	34	34	34	34	34		
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31	31	31	31	31	31	31		

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

	0°	45°	90°
0°	12452	12452	12452
5°	12379	11295	10705
10°	12326	9683	8909
15°	12199	8544	7663
20°	11985	7644	6769
25°	11604	6879	5996
30°	11092	6237	5205
35°	10462	5529	4658
40°	9691	4954	4245
45°	8809	4505	3916
50°	7848	4146	3660
55°	6844	3852	3422
60°	6010	3586	3224
65°	5203	3308	3010
70°	4506	2999	2774
75°	3751	2647	2436
80°	2907	2149	1991
85°	1826	1451	1319

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8809 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.9	6.0
10°-20°	280.1	14.2
20°-30°	357.9	18.1
30°-40°	363.5	18.4
40°-50°	322.2	16.3
50°-60°	253.2	12.8
60°-70°	172.4	8.7
70°-80°	88.5	4.5
80°-90°	19.6	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°	755.8	38.3
0°-40°	1119.3	56.7
0°-60°	1694.7	85.8
0°-90°	1975.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1975.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1395	1359	1273	1224	1206	132
15°	1333	1113	933	856	837	375
25°	1190	872	705	638	615	547
35°	969	660	512	447	432	605
45°	704	476	360	323	313	543
55°	444	317	250	228	222	401
65°	249	192	158	147	144	249
75°	110	90	78	74	71	118
85°	18	17	14	14	13	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1408.4	1408.4	1408.4	1408.4	1408.4
2.5°	1398.5	1400.3	1353.8	1337.1	1327.2
5°	1394.8	1359.4	1272.6	1223.6	1206.2
7.5°	1383.6	1306.7	1169.6	1102.0	1084.1
10°	1373.0	1246.5	1078.5	1011.5	992.3
12.5°	1355.7	1180.2	1005.3	928.4	905.4
15°	1332.7	1112.6	933.4	856.5	837.2
17.5°	1305.5	1048.1	868.2	794.4	773.3
20°	1273.8	988.5	812.4	736.8	719.4
22.5°	1234.1	929.6	755.4	687.1	667.9
25°	1189.5	872.0	705.1	637.5	614.6
27.5°	1141.7	816.1	658.6	583.6	559.4
30°	1086.5	762.8	610.9	532.1	509.8
32.5°	1030.7	710.1	560.6	486.2	468.2
35°	969.3	660.5	512.3	447.1	431.6
37.5°	907.3	612.7	468.8	411.8	398.1
40°	839.7	566.2	429.2	378.9	367.8
42.5°	772.1	519.7	393.2	349.8	339.2
45°	704.5	475.7	360.3	323.1	313.2
47.5°	636.3	432.3	329.9	297.1	289.0
50°	570.6	391.3	301.4	272.9	266.1
52.5°	506.7	352.9	274.1	249.9	242.5
55°	444.0	316.9	249.9	227.6	222.0
57.5°	390.7	283.4	225.7	206.5	202.2
60°	339.9	251.2	202.8	186.7	182.3
62.5°	292.1	221.4	179.8	166.8	163.7
65°	248.7	192.3	158.1	147.0	143.9
67.5°	209.0	165.6	135.8	127.8	125.3
70°	174.3	138.9	116.0	109.1	107.3
72.5°	139.5	113.5	96.1	91.2	89.3
75°	109.8	90.5	77.5	73.8	71.3
77.5°	82.5	68.8	59.5	56.4	54.6
80°	57.1	49.0	42.2	40.9	39.1
82.5°	36.0	31.0	27.3	26.7	24.8
85°	18.0	16.7	14.3	14.3	13.0
87.5°	6.2	5.6	5.6	5.6	5.0
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	17.67	19.15	18.03	19.47	19.78	14.99	16.48	15.36	16.79	17.11
	3H	19.26	20.59	19.64	20.92	21.28	16.59	17.92	16.97	18.25	18.61
	4H	19.79	21.04	20.19	21.39	21.77	17.15	18.40	17.55	18.75	19.13
	6H	20.12	21.27	20.53	21.64	22.03	17.50	18.66	17.92	19.02	19.42
	8H	20.20	21.30	20.63	21.69	22.09	17.59	18.69	18.02	19.08	19.48
	12H	20.23	21.28	20.66	21.66	22.09	17.63	18.68	18.06	19.06	19.49
4H	2H	17.89	19.14	18.29	19.49	19.87	15.67	16.92	16.07	17.27	17.64
	3H	19.68	20.72	20.09	21.12	21.52	17.45	18.49	17.87	18.89	19.29
	4H	20.32	21.25	20.75	21.67	22.11	18.12	19.05	18.55	19.47	19.91
	6H	20.76	21.57	21.22	22.02	22.48	18.58	19.38	19.03	19.83	20.29
	8H	20.88	21.63	21.34	22.08	22.55	18.69	19.45	19.16	19.89	20.36
	12H	20.93	21.61	21.42	22.09	22.56	18.75	19.43	19.23	19.91	20.38
8H	4H	20.42	21.18	20.89	21.62	22.09	18.42	19.17	18.88	19.62	20.09
	6H	20.94	21.56	21.44	22.06	22.53	18.97	19.59	19.46	20.08	20.56
	8H	21.10	21.65	21.61	22.16	22.65	19.13	19.69	19.65	20.20	20.69
	12H	21.20	21.69	21.71	22.18	22.75	19.24	19.73	19.75	20.23	20.79
12H	4H	20.41	21.09	20.90	21.57	22.04	18.44	19.12	18.92	19.59	20.07
	6H	20.93	21.49	21.45	22.00	22.49	19.00	19.56	19.52	20.07	20.56
	8H	21.13	21.62	21.64	22.11	22.68	19.22	19.71	19.73	20.20	20.77