

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: P1217364

Luminaire Tested: S124DRP-H485D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217364  
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-H485D830-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

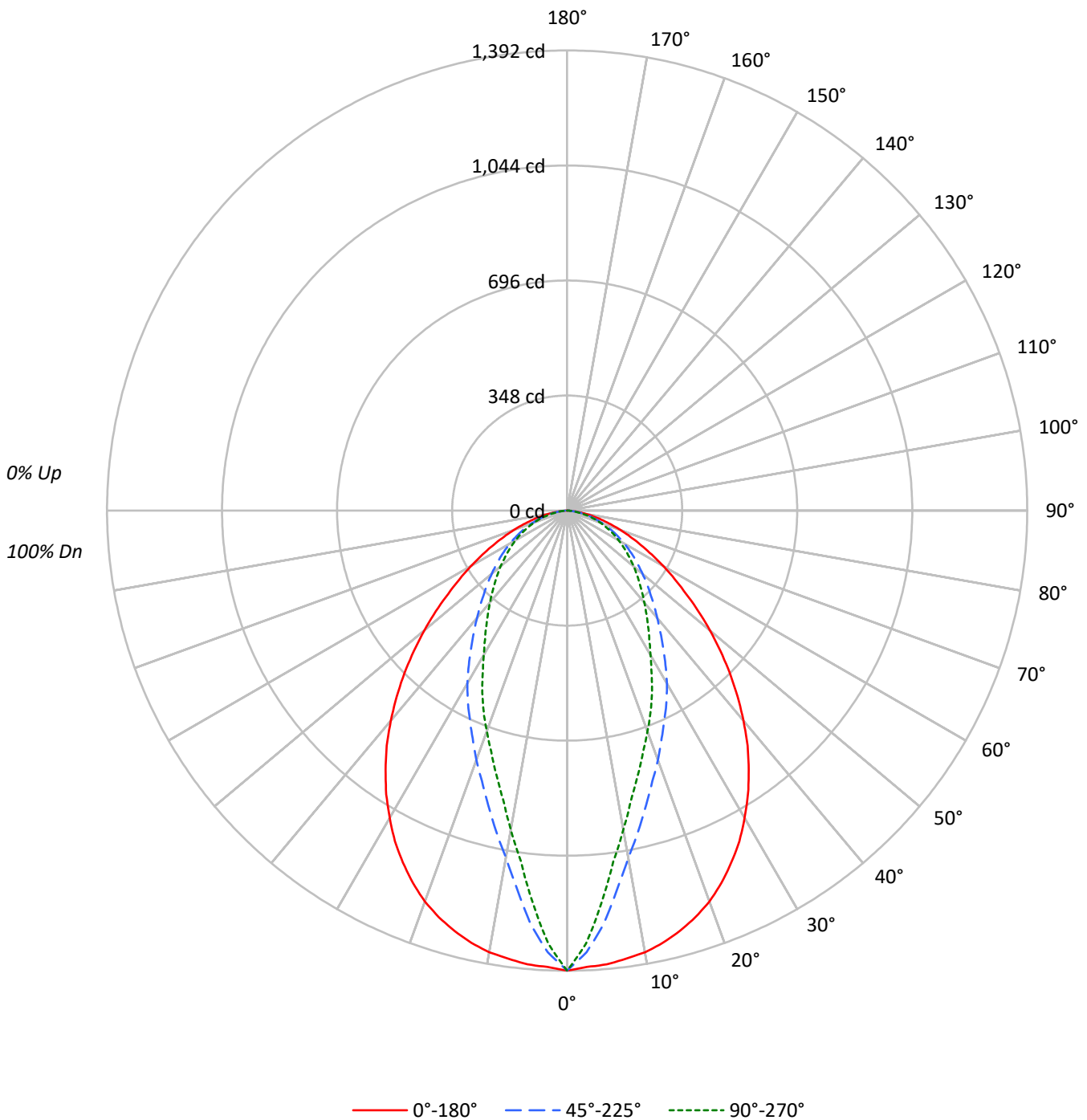
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1951.5 lumens  
Efficiency: N/A  
Efficacy: 112.8 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	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°	12303	12303	12303
5°	12230	11159	10577
10°	12179	9566	8801
15°	12052	8440	7572
20°	11841	7552	6688
25°	11465	6797	5923
30°	10960	6161	5142
35°	10337	5463	4603
40°	9575	4894	4193
45°	8703	4451	3869
50°	7754	4096	3616
55°	6762	3806	3382
60°	5938	3544	3185
65°	5140	3268	2975
70°	4451	2962	2740
75°	3706	2617	2408
80°	2872	2123	1965
85°	1806	1430	1309

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8703 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.5	6.0
10°-20°	276.7	14.2
20°-30°	353.6	18.1
30°-40°	359.1	18.4
40°-50°	318.3	16.3
50°-60°	250.1	12.8
60°-70°	170.3	8.7
70°-80°	87.5	4.5
80°-90°	19.4	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°	746.8	38.3
0°-40°	1105.9	56.7
0°-60°	1674.3	85.8
0°-90°	1951.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1951.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1392	1392	1392	1392	1392	
5°	1378	1343	1257	1209	1192	131
15°	1317	1099	922	846	827	371
25°	1175	862	697	630	607	540
35°	958	652	506	442	426	598
45°	696	470	356	319	309	536
55°	439	313	247	225	219	396
65°	246	190	156	145	142	246
75°	108	90	77	73	70	117
85°	18	16	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°	1391.5	1391.5	1391.5	1391.5	1391.5
2.5°	1381.7	1383.5	1337.6	1321.0	1311.2
5°	1378.0	1343.1	1257.3	1208.9	1191.7
7.5°	1367.0	1291.0	1155.6	1088.8	1071.0
10°	1356.6	1231.6	1065.5	999.3	980.3
12.5°	1339.4	1166.0	993.2	917.2	894.6
15°	1316.7	1099.2	922.1	846.2	827.2
17.5°	1289.8	1035.5	857.8	784.9	764.1
20°	1258.5	976.7	802.7	727.9	710.8
22.5°	1219.3	918.5	746.3	678.9	659.9
25°	1175.2	861.5	696.7	629.9	607.2
27.5°	1128.0	806.3	650.7	576.6	552.7
30°	1073.5	753.6	603.5	525.7	503.7
32.5°	1018.3	701.6	553.9	480.4	462.6
35°	957.7	652.5	506.1	441.8	426.5
37.5°	896.4	605.4	463.2	406.8	393.4
40°	829.6	559.4	424.0	374.4	363.3
42.5°	762.8	513.5	388.5	345.6	335.2
45°	696.0	470.0	356.0	319.2	309.4
47.5°	628.6	427.1	326.0	293.5	285.5
50°	563.7	386.6	297.8	269.6	262.9
52.5°	500.6	348.6	270.8	246.9	239.6
55°	438.7	313.1	246.9	224.9	219.4
57.5°	386.0	280.0	223.0	204.0	199.7
60°	335.8	248.2	200.4	184.4	180.1
62.5°	288.6	218.7	177.7	164.8	161.8
65°	245.7	189.9	156.2	145.2	142.2
67.5°	206.5	163.6	134.2	126.2	123.8
70°	172.2	137.2	114.6	107.8	106.0
72.5°	137.9	112.1	95.0	90.1	88.2
75°	108.5	89.5	76.6	72.9	70.5
77.5°	81.5	68.0	58.8	55.8	53.9
80°	56.4	48.4	41.7	40.4	38.6
82.5°	35.5	30.6	27.0	26.3	24.5
85°	17.8	16.5	14.1	14.1	12.9
87.5°	6.1	5.5	5.5	5.5	4.9
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	17.62	19.11	17.99	19.42	19.74	14.95	16.44	15.31	16.75	17.06
	3H	19.22	20.55	19.59	20.88	21.24	16.55	17.88	16.93	18.21	18.57
	4H	19.75	21.00	20.15	21.35	21.73	17.11	18.36	17.51	18.70	19.08
	6H	20.08	21.23	20.49	21.60	21.99	17.46	18.61	17.87	18.98	19.37
	8H	20.16	21.25	20.58	21.64	22.05	17.55	18.65	17.97	19.04	19.44
	12H	20.19	21.24	20.62	21.62	22.05	17.58	18.63	18.01	19.02	19.45
4H	2H	17.85	19.10	18.25	19.45	19.83	15.62	16.87	16.02	17.22	17.60
	3H	19.64	20.67	20.05	21.07	21.48	17.41	18.45	17.82	18.85	19.25
	4H	20.28	21.21	20.71	21.63	22.07	18.08	19.01	18.51	19.42	19.86
	6H	20.72	21.53	21.18	21.98	22.44	18.53	19.34	18.99	19.79	20.25
	8H	20.83	21.59	21.30	22.04	22.50	18.65	19.40	19.11	19.85	20.32
	12H	20.89	21.57	21.38	22.05	22.52	18.71	19.38	19.19	19.86	20.33
8H	4H	20.38	21.14	20.85	21.58	22.05	18.38	19.13	18.84	19.58	20.04
	6H	20.90	21.52	21.40	22.01	22.49	18.93	19.55	19.42	20.04	20.52
	8H	21.05	21.61	21.57	22.12	22.61	19.09	19.65	19.61	20.16	20.65
	12H	21.15	21.65	21.67	22.14	22.71	19.20	19.69	19.71	20.18	20.75
12H	4H	20.37	21.05	20.85	21.53	22.00	18.40	19.07	18.88	19.55	20.02
	6H	20.89	21.45	21.41	21.96	22.45	18.96	19.52	19.48	20.03	20.52
	8H	21.09	21.58	21.60	22.07	22.64	19.18	19.67	19.69	20.16	20.73