

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: P1217369

Luminaire Tested: S124DRP-H485D930-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217369
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-H485D930-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

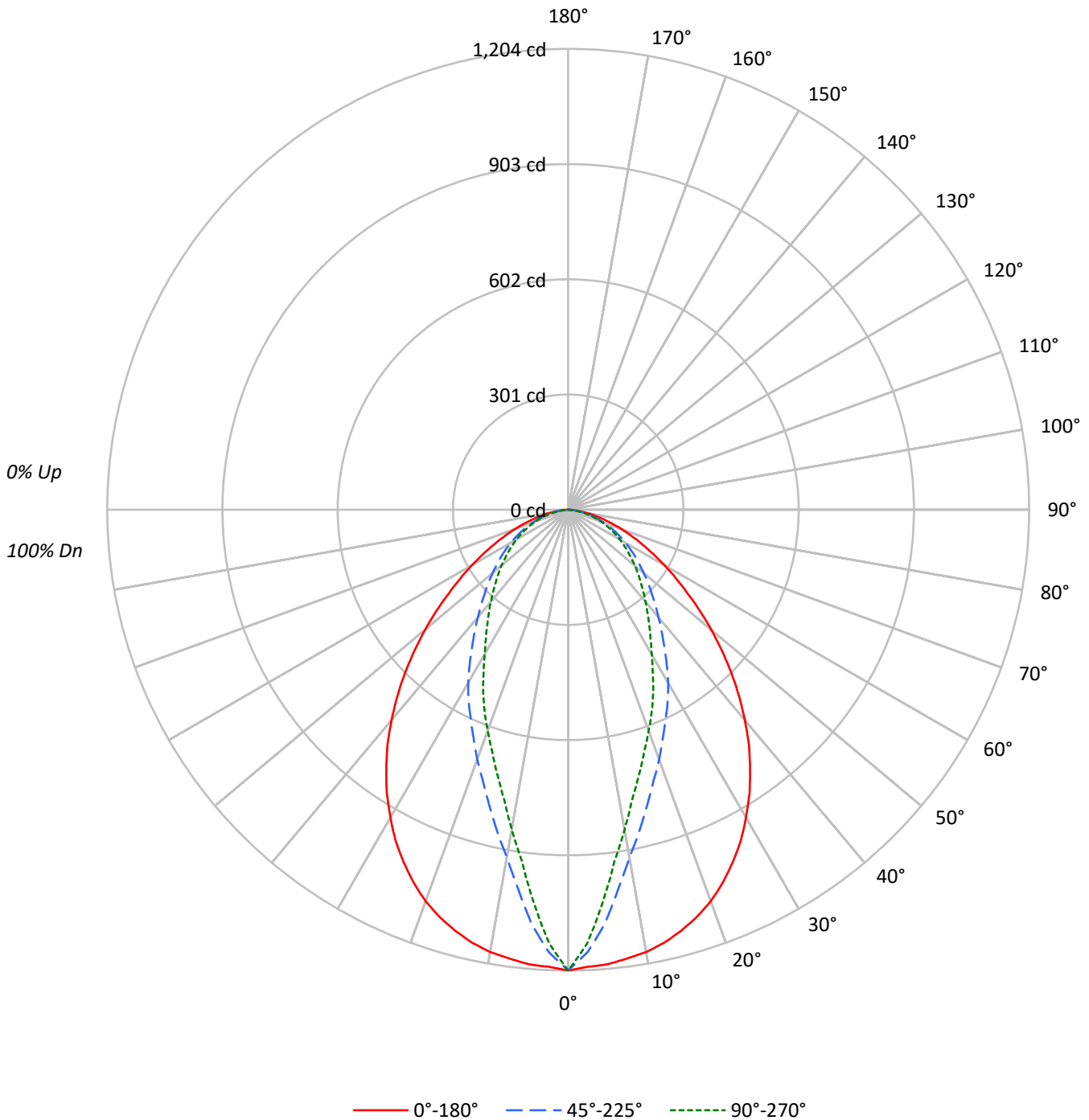
Lumens per Lamp: N/A
Luminaire Lumens: 1688.1 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	10641	10641	10641
5°	10579	9653	9149
10°	10535	8275	7613
15°	10426	7302	6549
20°	10242	6533	5785
25°	9916	5879	5124
30°	9480	5330	4448
35°	8941	4725	3982
40°	8282	4233	3628
45°	7528	3850	3347
50°	6707	3543	3128
55°	5850	3293	2924
60°	5135	3064	2755
65°	4446	2828	2573
70°	3849	2562	2370
75°	3204	2265	2084
80°	2485	1833	1701
85°	1562	1238	1126

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7528 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	6.0
10°-20°	239.3	14.2
20°-30°	305.8	18.1
30°-40°	310.6	18.4
40°-50°	275.4	16.3
50°-60°	216.4	12.8
60°-70°	147.3	8.7
70°-80°	75.7	4.5
80°-90°	16.8	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°	645.9	38.3
0°-40°	956.6	56.7
0°-60°	1448.3	85.8
0°-90°	1688.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1688.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1204	1204	1204	1204	1204	
5°	1192	1162	1088	1046	1031	113
15°	1139	951	798	732	716	321
25°	1016	745	603	545	525	467
35°	828	564	438	382	369	517
45°	602	406	308	276	268	464
55°	380	271	214	194	190	343
65°	212	164	135	126	123	213
75°	94	77	66	63	61	101
85°	15	14	12	12	11	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1203.6	1203.6	1203.6	1203.6	1203.6
2.5°	1195.2	1196.7	1157.0	1142.7	1134.2
5°	1192.0	1161.8	1087.6	1045.7	1030.9
7.5°	1182.4	1116.7	999.6	941.8	926.4
10°	1173.4	1065.3	921.7	864.4	848.0
12.5°	1158.6	1008.6	859.1	793.4	773.8
15°	1139.0	950.8	797.7	731.9	715.5
17.5°	1115.7	895.7	742.0	678.9	660.9
20°	1088.6	844.8	694.3	629.6	614.8
22.5°	1054.7	794.5	645.5	587.2	570.8
25°	1016.5	745.2	602.6	544.8	525.2
27.5°	975.7	697.5	562.9	498.7	478.1
30°	928.6	651.9	522.1	454.7	435.7
32.5°	880.9	606.9	479.1	415.5	400.2
35°	828.4	564.5	437.8	382.1	368.9
37.5°	775.4	523.6	400.7	351.9	340.3
40°	717.6	483.9	366.8	323.8	314.3
42.5°	659.9	444.1	336.0	298.9	289.9
45°	602.1	406.5	307.9	276.1	267.7
47.5°	543.8	369.4	282.0	253.9	247.0
50°	487.6	334.4	257.6	233.2	227.4
52.5°	433.0	301.6	234.3	213.6	207.2
55°	379.5	270.8	213.6	194.5	189.7
57.5°	333.9	242.2	192.9	176.5	172.8
60°	290.4	214.7	173.3	159.5	155.8
62.5°	249.6	189.2	153.7	142.6	139.9
65°	212.5	164.3	135.2	125.6	123.0
67.5°	178.6	141.5	116.1	109.2	107.1
70°	148.9	118.7	99.1	93.3	91.7
72.5°	119.3	97.0	82.2	77.9	76.3
75°	93.8	77.4	66.3	63.1	61.0
77.5°	70.5	58.8	50.9	48.2	46.6
80°	48.8	41.9	36.0	35.0	33.4
82.5°	30.7	26.5	23.3	22.8	21.2
85°	15.4	14.3	12.2	12.2	11.1
87.5°	5.3	4.8	4.8	4.8	4.2
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	17.12	18.61	17.49	18.92	19.24	14.45	15.93	14.81	16.25	16.56
	3H	18.71	20.05	19.09	20.37	20.74	16.05	17.38	16.42	17.71	18.07
	4H	19.24	20.49	19.64	20.84	21.22	16.60	17.85	17.00	18.20	18.58
	6H	19.57	20.73	19.99	21.10	21.49	16.96	18.11	17.37	18.48	18.87
	8H	19.65	20.75	20.08	21.14	21.54	17.05	18.14	17.47	18.53	18.93
	12H	19.68	20.73	20.11	21.11	21.54	17.08	18.13	17.51	18.51	18.94
4H	2H	17.35	18.60	17.75	18.95	19.33	15.12	16.37	15.52	16.72	17.10
	3H	19.13	20.17	19.54	20.57	20.97	16.91	17.95	17.32	18.35	18.75
	4H	19.77	20.71	20.21	21.12	21.56	17.57	18.51	18.01	18.92	19.36
	6H	20.22	21.03	20.68	21.47	21.93	18.03	18.84	18.49	19.28	19.74
	8H	20.33	21.09	20.80	21.53	22.00	18.15	18.90	18.61	19.35	19.82
	12H	20.39	21.06	20.87	21.54	22.01	18.21	18.88	18.69	19.36	19.83
8H	4H	19.88	20.63	20.34	21.08	21.55	17.87	18.63	18.34	19.07	19.54
	6H	20.40	21.02	20.89	21.51	21.99	18.42	19.05	18.92	19.54	20.02
	8H	20.55	21.11	21.07	21.62	22.11	18.59	19.15	19.11	19.66	20.15
	12H	20.65	21.14	21.16	21.64	22.20	18.70	19.19	19.21	19.68	20.25
12H	4H	19.87	20.54	20.35	21.02	21.49	17.90	18.57	18.38	19.05	19.52
	6H	20.39	20.95	20.90	21.46	21.95	18.46	19.02	18.97	19.53	20.02
	8H	20.58	21.07	21.09	21.57	22.13	18.67	19.17	19.18	19.66	20.22