

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: P1217366

Luminaire Tested: S124DRP-H485D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217366
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-H485D840-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

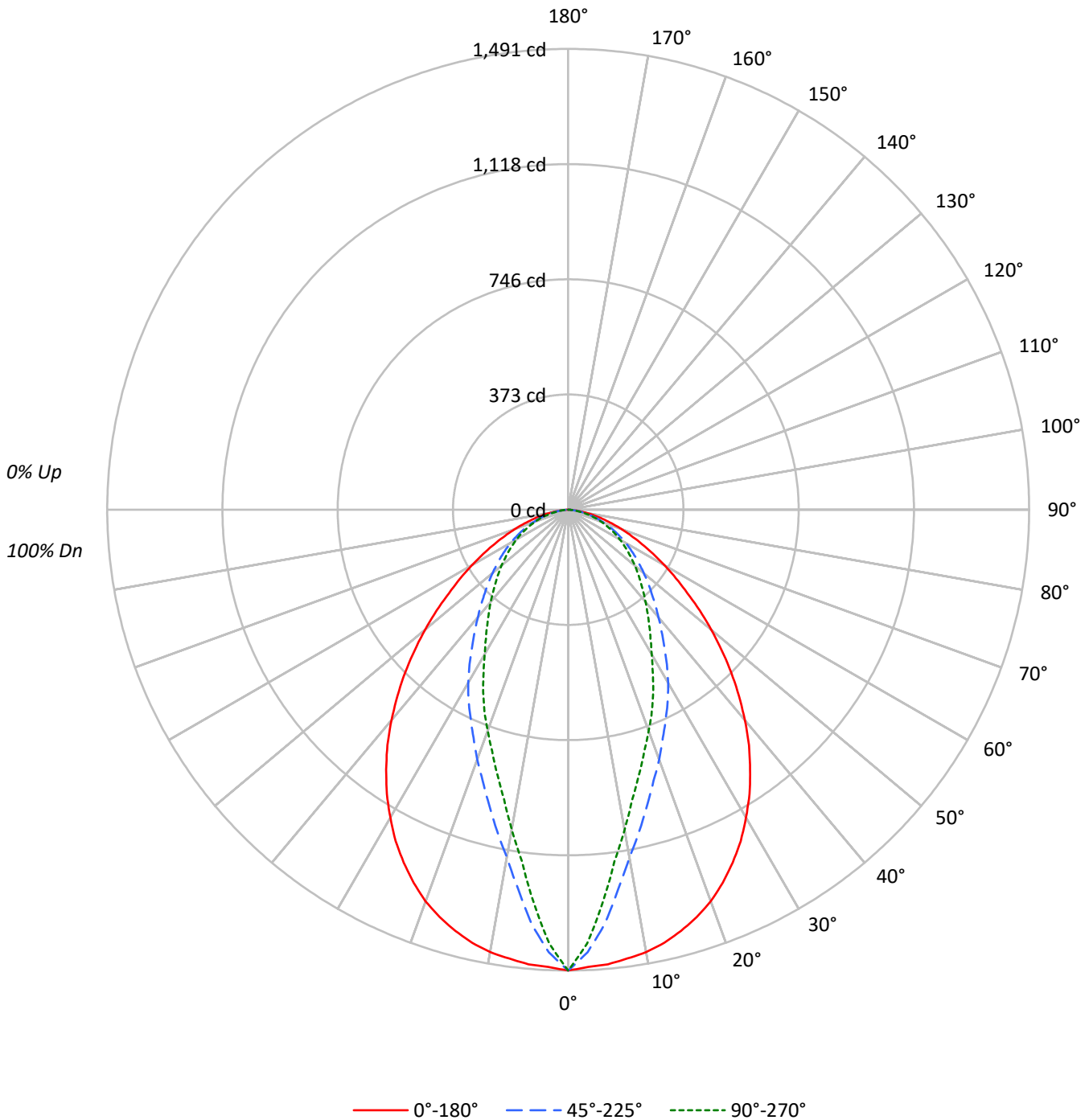
Lumens per Lamp: N/A
Luminaire Lumens: 2090.9 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13182	13182	13182
5°	13103	11956	11333
10°	13049	10249	9430
15°	12913	9043	8113
20°	12687	8092	7165
25°	12283	7281	6347
30°	11743	6601	5509
35°	11075	5853	4931
40°	10259	5243	4493
45°	9325	4769	4145
50°	8308	4389	3873
55°	7245	4079	3622
60°	6362	3796	3413
65°	5506	3502	3186
70°	4769	3174	2937
75°	3969	2805	2579
80°	3075	2271	2108
85°	1927	1532	1400

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9325 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.8	6.0
10°-20°	296.5	14.2
20°-30°	378.8	18.1
30°-40°	384.8	18.4
40°-50°	341.1	16.3
50°-60°	268.0	12.8
60°-70°	182.5	8.7
70°-80°	93.7	4.5
80°-90°	20.8	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°	800.1	38.3
0°-40°	1184.9	56.7
0°-60°	1794.0	85.8
0°-90°	2090.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2090.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1491	1491	1491	1491	1491	
5°	1476	1439	1347	1295	1277	140
15°	1411	1178	988	907	886	397
25°	1259	923	746	675	651	579
35°	1026	699	542	473	457	640
45°	746	504	381	342	332	575
55°	470	336	265	241	235	424
65°	263	204	167	156	152	263
75°	116	96	82	78	76	125
85°	19	18	15	15	14	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1490.9	1490.9	1490.9	1490.9	1490.9
2.5°	1480.4	1482.3	1433.1	1415.4	1404.9
5°	1476.4	1439.0	1347.1	1295.2	1276.9
7.5°	1464.6	1383.2	1238.1	1166.6	1147.5
10°	1453.5	1319.5	1141.6	1070.7	1050.4
12.5°	1435.1	1249.3	1064.2	982.8	958.5
15°	1410.8	1177.7	988.0	906.6	886.3
17.5°	1381.9	1109.5	919.1	841.0	818.6
20°	1348.4	1046.4	860.0	779.9	761.5
22.5°	1306.4	984.1	799.6	727.4	707.0
25°	1259.1	923.0	746.4	674.9	650.6
27.5°	1208.6	863.9	697.2	617.8	592.1
30°	1150.2	807.5	646.6	563.3	539.6
32.5°	1091.1	751.7	593.5	514.7	495.6
35°	1026.1	699.2	542.3	473.3	456.9
37.5°	960.4	648.6	496.3	435.9	421.5
40°	888.9	599.4	454.3	401.1	389.3
42.5°	817.3	550.1	416.2	370.3	359.1
45°	745.8	503.5	381.4	342.0	331.5
47.5°	673.6	457.6	349.2	314.5	305.9
50°	604.0	414.2	319.1	288.9	281.6
52.5°	536.3	373.5	290.2	264.6	256.7
55°	470.0	335.5	264.6	240.9	235.0
57.5°	413.6	300.0	239.0	218.6	214.0
60°	359.8	265.9	214.7	197.6	193.0
62.5°	309.2	234.4	190.4	176.6	173.3
65°	263.2	203.5	167.4	155.6	152.3
67.5°	221.2	175.3	143.8	135.2	132.6
70°	184.5	147.1	122.8	115.5	113.6
72.5°	147.7	120.1	101.8	96.5	94.5
75°	116.2	95.8	82.1	78.1	75.5
77.5°	87.3	72.9	63.0	59.7	57.8
80°	60.4	51.9	44.6	43.3	41.4
82.5°	38.1	32.8	28.9	28.2	26.3
85°	19.0	17.7	15.1	15.1	13.8
87.5°	6.6	5.9	5.9	5.9	5.3
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	17.86	19.35	18.23	19.66	19.98	15.19	16.68	15.55	16.99	17.30
	3H	19.46	20.79	19.83	21.12	21.48	16.79	18.12	17.17	18.45	18.81
	4H	19.99	21.24	20.39	21.59	21.96	17.35	18.59	17.75	18.94	19.32
	6H	20.32	21.47	20.73	21.84	22.23	17.70	18.85	18.11	19.22	19.61
	8H	20.40	21.49	20.82	21.88	22.29	17.79	18.89	18.22	19.28	19.68
	12H	20.42	21.48	20.86	21.86	22.29	17.82	18.88	18.26	19.26	19.69
4H	2H	18.09	19.34	18.49	19.69	20.07	15.86	17.11	16.27	17.46	17.84
	3H	19.88	20.91	20.29	21.31	21.72	17.65	18.69	18.06	19.09	19.49
	4H	20.52	21.45	20.95	21.87	22.30	18.32	19.25	18.75	19.66	20.10
	6H	20.96	21.77	21.42	22.22	22.68	18.77	19.58	19.23	20.03	20.49
	8H	21.07	21.83	21.54	22.28	22.74	18.89	19.65	19.35	20.09	20.56
	12H	21.13	21.81	21.62	22.29	22.76	18.95	19.62	19.43	20.10	20.57
8H	4H	20.62	21.38	21.08	21.82	22.29	18.62	19.37	19.08	19.82	20.28
	6H	21.14	21.76	21.64	22.25	22.73	19.16	19.79	19.66	20.28	20.76
	8H	21.29	21.85	21.81	22.36	22.85	19.33	19.89	19.85	20.40	20.89
	12H	21.39	21.89	21.91	22.38	22.95	19.44	19.93	19.95	20.42	20.99
12H	4H	20.61	21.29	21.09	21.76	22.24	18.64	19.31	19.12	19.79	20.26
	6H	21.13	21.69	21.65	22.20	22.69	19.20	19.76	19.72	20.27	20.76
	8H	21.33	21.82	21.84	22.31	22.88	19.42	19.91	19.93	20.40	20.97