

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: P1217371

Luminaire Tested: S124DRP-H485D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217371
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-H485D940-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

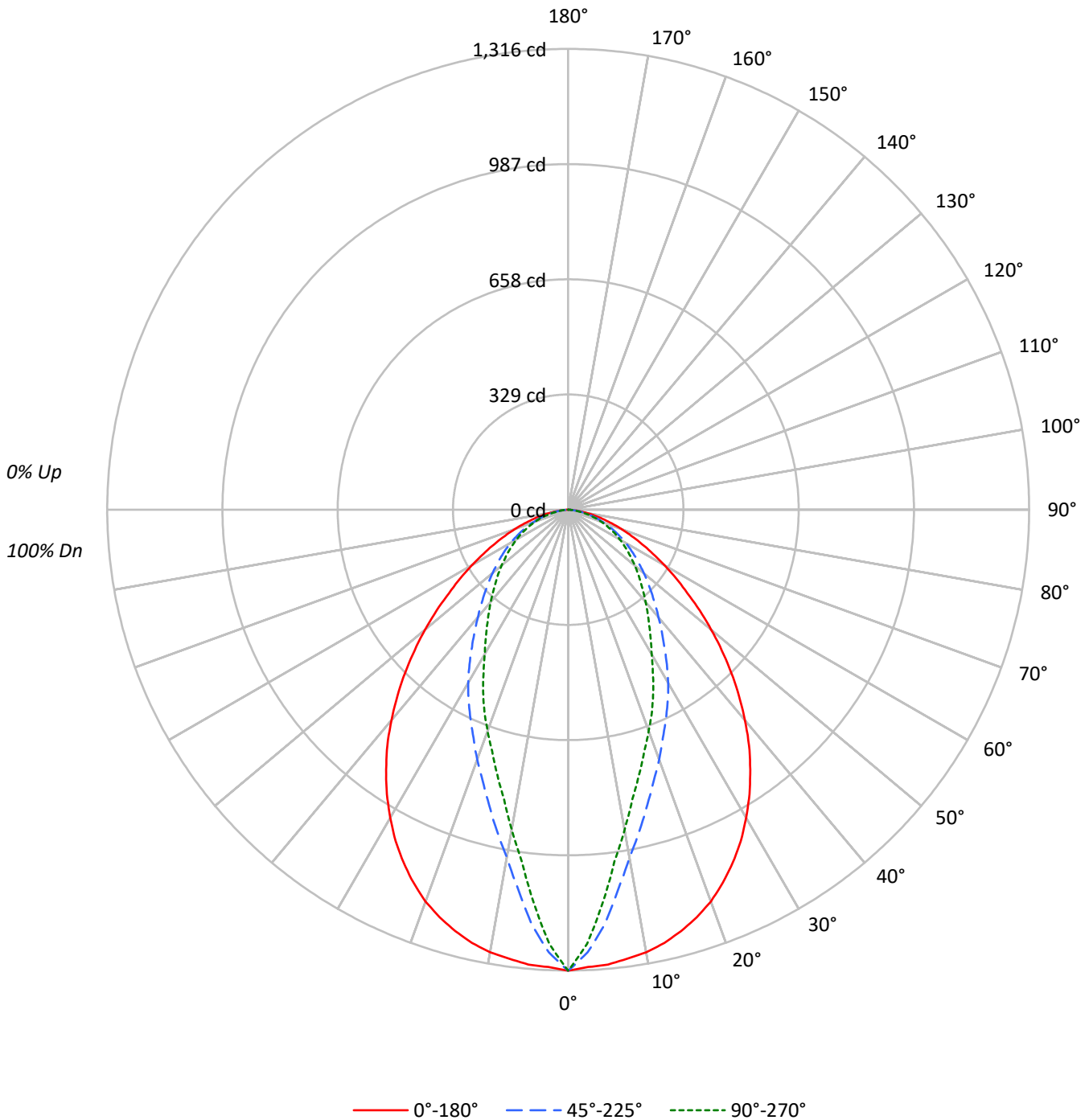
Lumens per Lamp: N/A
Luminaire Lumens: 1846.2 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1217371

CATALOG NUMBER: S124DRP-H485D940-X4F0-XX-UDD-G-W

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°	11639	11639	11639
5°	11571	10557	10007
10°	11522	9050	8327
15°	11402	7985	7163
20°	11203	7145	6326
25°	10846	6430	5604
30°	10368	5829	4865
35°	9779	5168	4355
40°	9059	4629	3967
45°	8234	4211	3660
50°	7335	3875	3421
55°	6397	3601	3199
60°	5618	3353	3013
65°	4862	3092	2814
70°	4211	2802	2593
75°	3505	2477	2279
80°	2714	2006	1858
85°	1704	1349	1238

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8234 cd/sqm



TEST NUMBER: P1217371

CATALOG NUMBER: S124DRP-H485D940-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.2	6.0
10°-20°	261.8	14.2
20°-30°	334.5	18.1
30°-40°	339.7	18.4
40°-50°	301.2	16.3
50°-60°	236.7	12.8
60°-70°	161.1	8.7
70°-80°	82.7	4.5
80°-90°	18.3	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°	706.5	38.3
0°-40°	1046.2	56.7
0°-60°	1584.0	85.8
0°-90°	1846.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1846.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1316	1316	1316	1316	1316	
5°	1304	1271	1190	1144	1128	124
15°	1246	1040	872	800	783	351
25°	1112	815	659	596	574	511
35°	906	617	479	418	404	565
45°	658	445	337	302	293	507
55°	415	296	234	213	208	375
65°	232	180	148	137	134	233
75°	103	85	72	69	67	110
85°	17	16	13	13	12	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1316.4	1316.4	1316.4	1316.4	1316.4
2.5°	1307.2	1308.9	1265.4	1249.8	1240.5
5°	1303.7	1270.6	1189.5	1143.7	1127.5
7.5°	1293.3	1221.4	1093.3	1030.1	1013.3
10°	1283.4	1165.1	1008.1	945.4	927.5
12.5°	1267.2	1103.1	939.7	867.8	846.3
15°	1245.7	1039.9	872.4	800.5	782.6
17.5°	1220.2	979.6	811.5	742.6	722.9
20°	1190.7	924.0	759.4	688.7	672.4
22.5°	1153.6	868.9	706.0	642.3	624.3
25°	1111.8	815.0	659.1	595.9	574.5
27.5°	1067.2	762.9	615.6	545.5	522.9
30°	1015.6	713.0	571.0	497.4	476.5
32.5°	963.4	663.7	524.0	454.5	437.7
35°	906.0	617.4	478.8	417.9	403.5
37.5°	848.1	572.7	438.2	384.9	372.2
40°	784.9	529.2	401.1	354.2	343.7
42.5°	721.7	485.8	367.5	326.9	317.1
45°	658.5	444.6	336.8	302.0	292.7
47.5°	594.7	404.0	308.4	277.7	270.1
50°	533.3	365.8	281.7	255.1	248.7
52.5°	473.6	329.8	256.2	233.6	226.7
55°	415.0	296.2	233.6	212.7	207.5
57.5°	365.2	264.9	211.0	193.0	189.0
60°	317.7	234.8	189.6	174.5	170.4
62.5°	273.0	206.9	168.1	155.9	153.0
65°	232.4	179.7	147.8	137.4	134.5
67.5°	195.4	154.8	126.9	119.4	117.1
70°	162.9	129.8	108.4	102.0	100.3
72.5°	130.4	106.1	89.8	85.2	83.5
75°	102.6	84.6	72.5	69.0	66.7
77.5°	77.1	64.3	55.6	52.8	51.0
80°	53.3	45.8	39.4	38.3	36.5
82.5°	33.6	29.0	25.5	24.9	23.2
85°	16.8	15.7	13.3	13.3	12.2
87.5°	5.8	5.2	5.2	5.2	4.6
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	17.43	18.92	17.80	19.23	19.55	14.76	16.24	15.12	16.56	16.87
	3H	19.02	20.36	19.40	20.69	21.05	16.36	17.69	16.73	18.02	18.38
	4H	19.55	20.80	19.95	21.15	21.53	16.91	18.16	17.31	18.51	18.89
	6H	19.89	21.04	20.30	21.41	21.80	17.27	18.42	17.68	18.79	19.18
	8H	19.96	21.06	20.39	21.45	21.85	17.36	18.45	17.78	18.84	19.25
	12H	19.99	21.04	20.42	21.43	21.85	17.39	18.44	17.82	18.83	19.25
4H	2H	17.66	18.91	18.06	19.26	19.64	15.43	16.68	15.83	17.03	17.41
	3H	19.44	20.48	19.86	20.88	21.28	17.22	18.26	17.63	18.66	19.06
	4H	20.08	21.02	20.52	21.43	21.87	17.88	18.82	18.32	19.23	19.67
	6H	20.53	21.34	20.99	21.78	22.24	18.34	19.15	18.80	19.59	20.05
	8H	20.64	21.40	21.11	21.84	22.31	18.46	19.21	18.92	19.66	20.13
	12H	20.70	21.37	21.18	21.85	22.32	18.52	19.19	19.00	19.67	20.14
8H	4H	20.19	20.94	20.65	21.39	21.86	18.18	18.94	18.65	19.38	19.85
	6H	20.71	21.33	21.20	21.82	22.30	18.73	19.36	19.23	19.85	20.33
	8H	20.86	21.42	21.38	21.93	22.42	18.90	19.46	19.42	19.97	20.46
	12H	20.96	21.45	21.47	21.95	22.51	19.01	19.50	19.52	19.99	20.56
12H	4H	20.18	20.85	20.66	21.33	21.80	18.21	18.88	18.69	19.36	19.83
	6H	20.70	21.26	21.21	21.77	22.26	18.77	19.33	19.29	19.84	20.33
	8H	20.89	21.38	21.40	21.88	22.44	18.98	19.48	19.49	19.97	20.53