

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: P1217416

Luminaire Tested: S124DRP-S485D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217416
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-S485D940-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

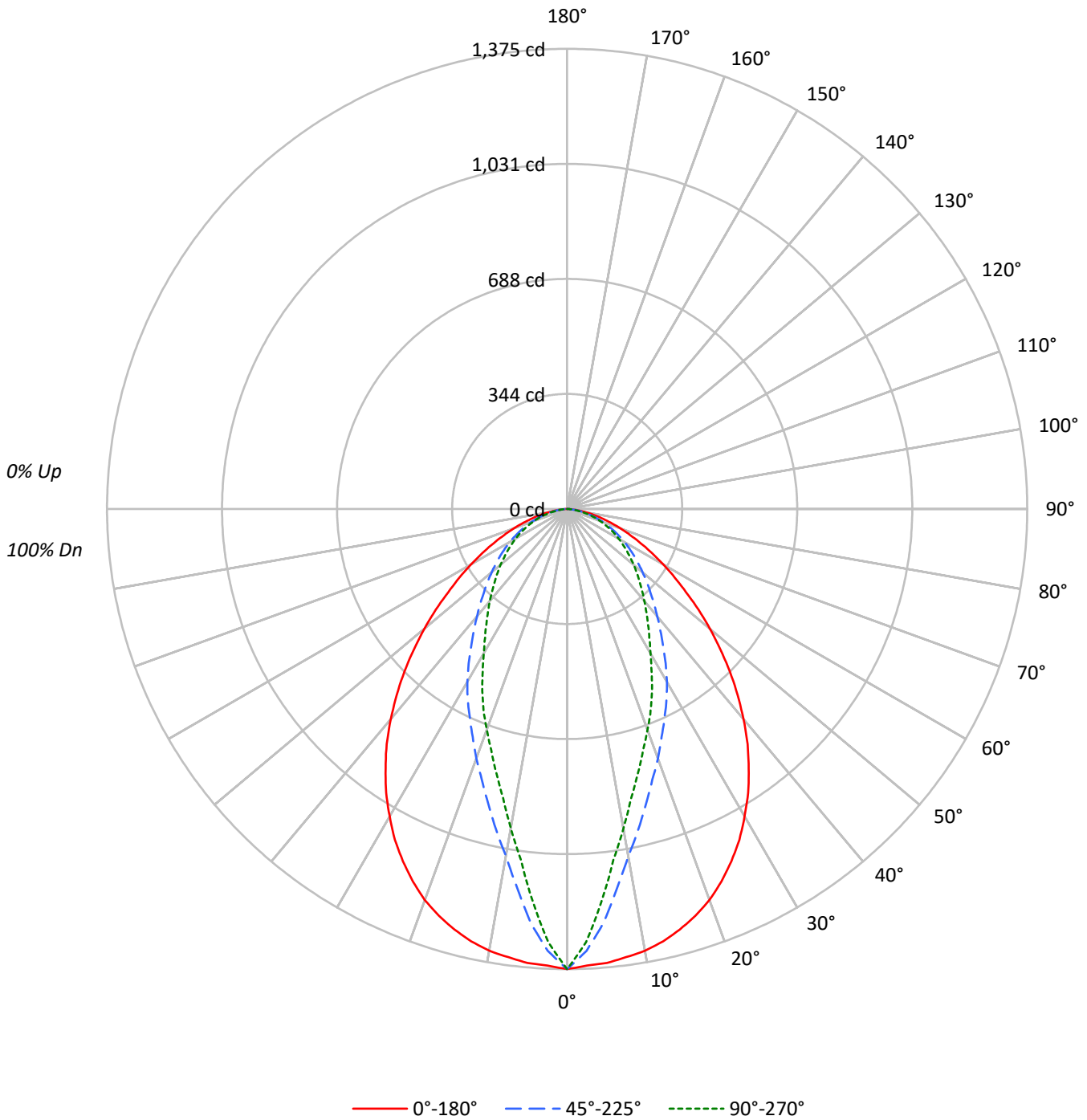
Lumens per Lamp: N/A
Luminaire Lumens: 1928.2 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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: P1217416

CATALOG NUMBER: S124DRP-S485D940-X4F0-XX-UDD-G-W

Luminous Intensity Polar Plot





TEST NUMBER: P1217416

CATALOG NUMBER: S124DRP-S485D940-X4F0-XX-UDD-G-W

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°	12156	12156	12156
5°	12084	11026	10450
10°	12034	9452	8696
15°	11908	8340	7481
20°	11700	7462	6608
25°	11328	6715	5853
30°	10829	6088	5080
35°	10213	5398	4548
40°	9461	4835	4143
45°	8599	4398	3822
50°	7661	4047	3572
55°	6682	3761	3340
60°	5867	3501	3148
65°	5079	3230	2939
70°	4397	2926	2707
75°	3662	2586	2378
80°	2836	2098	1940
85°	1785	1410	1288

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8599 cd/sqm



TEST NUMBER: P1217416

CATALOG NUMBER: S124DRP-S485D940-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	6.0
10°-20°	273.4	14.2
20°-30°	349.4	18.1
30°-40°	354.8	18.4
40°-50°	314.5	16.3
50°-60°	247.2	12.8
60°-70°	168.3	8.7
70°-80°	86.4	4.5
80°-90°	19.1	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°	737.8	38.3
0°-40°	1092.7	56.7
0°-60°	1654.4	85.8
0°-90°	1928.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1928.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1362	1327	1242	1194	1178	129
15°	1301	1086	911	836	817	366
25°	1161	851	688	622	600	534
35°	946	645	500	436	421	590
45°	688	464	352	315	306	530
55°	434	309	244	222	217	391
65°	243	188	154	144	140	243
75°	107	88	76	72	70	115
85°	18	16	14	14	13	24
90°	0	0	0	0	0	



TEST NUMBER: P1217416

CATALOG NUMBER: S124DRP-S485D940-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1374.9	1374.9	1374.9	1374.9	1374.9
2.5°	1365.2	1367.0	1321.6	1305.3	1295.6
5°	1361.6	1327.0	1242.3	1194.5	1177.5
7.5°	1350.7	1275.6	1141.8	1075.8	1058.2
10°	1340.4	1216.9	1052.8	987.4	968.6
12.5°	1323.4	1152.1	981.4	906.3	883.9
15°	1301.0	1086.1	911.1	836.1	817.3
17.5°	1274.4	1023.1	847.6	775.5	754.9
20°	1243.5	965.0	793.1	719.2	702.3
22.5°	1204.8	907.5	737.4	670.8	652.0
25°	1161.2	851.2	688.3	622.4	600.0
27.5°	1114.6	796.7	642.9	569.7	546.1
30°	1060.7	744.6	596.3	519.4	497.6
32.5°	1006.2	693.2	547.3	474.6	457.1
35°	946.2	644.8	500.1	436.5	421.4
37.5°	885.7	598.1	457.7	402.0	388.7
40°	819.7	552.7	418.9	369.9	359.0
42.5°	753.7	507.3	383.8	341.4	331.2
45°	687.7	464.3	351.7	315.4	305.7
47.5°	621.1	422.0	322.1	290.0	282.1
50°	557.0	382.0	294.2	266.4	259.7
52.5°	494.6	344.5	267.6	244.0	236.7
55°	433.5	309.4	244.0	222.2	216.7
57.5°	381.4	276.7	220.4	201.6	197.4
60°	331.8	245.2	198.0	182.2	178.0
62.5°	285.1	216.1	175.6	162.9	159.8
65°	242.8	187.7	154.4	143.5	140.5
67.5°	204.0	161.6	132.6	124.7	122.3
70°	170.1	135.6	113.2	106.6	104.7
72.5°	136.2	110.8	93.8	89.0	87.2
75°	107.2	88.4	75.7	72.0	69.6
77.5°	80.5	67.2	58.1	55.1	53.3
80°	55.7	47.8	41.2	40.0	38.1
82.5°	35.1	30.3	26.6	26.0	24.2
85°	17.6	16.3	13.9	13.9	12.7
87.5°	6.1	5.4	5.4	5.4	4.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217416
 CATALOG NUMBER: S124DRP-S485D940-X4F0-XX-UDD-G-W

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	17.58	19.07	17.95	19.38	19.70	14.91	16.40	15.27	16.71	17.02
	3H	19.18	20.51	19.55	20.84	21.20	16.51	17.84	16.88	18.17	18.53
	4H	19.71	20.96	20.11	21.30	21.68	17.06	18.31	17.46	18.66	19.04
	6H	20.04	21.19	20.45	21.56	21.95	17.42	18.57	17.83	18.94	19.33
	8H	20.11	21.21	20.54	21.60	22.00	17.51	18.60	17.93	18.99	19.40
	12H	20.14	21.19	20.57	21.58	22.01	17.54	18.59	17.97	18.98	19.40
4H	2H	17.81	19.06	18.21	19.41	19.79	15.58	16.83	15.98	17.18	17.56
	3H	19.59	20.63	20.01	21.03	21.43	17.37	18.41	17.78	18.81	19.21
	4H	20.24	21.17	20.67	21.58	22.02	18.03	18.97	18.47	19.38	19.82
	6H	20.68	21.49	21.14	21.93	22.40	18.49	19.30	18.95	19.74	20.21
	8H	20.79	21.55	21.26	21.99	22.46	18.61	19.36	19.07	19.81	20.28
	12H	20.85	21.53	21.33	22.00	22.48	18.67	19.34	19.15	19.82	20.29
8H	4H	20.34	21.10	20.80	21.54	22.01	18.33	19.09	18.80	19.54	20.00
	6H	20.86	21.48	21.35	21.97	22.45	18.88	19.51	19.38	20.00	20.48
	8H	21.01	21.57	21.53	22.08	22.57	19.05	19.61	19.57	20.12	20.61
	12H	21.11	21.61	21.62	22.10	22.66	19.16	19.65	19.67	20.14	20.71
12H	4H	20.33	21.00	20.81	21.48	21.96	18.36	19.03	18.84	19.51	19.98
	6H	20.85	21.41	21.37	21.92	22.41	18.92	19.48	19.44	19.99	20.48
	8H	21.04	21.54	21.55	22.03	22.59	19.13	19.63	19.64	20.12	20.69