

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: P1217409

Luminaire Tested: S124DRP-S485D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217409
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-S485D830-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

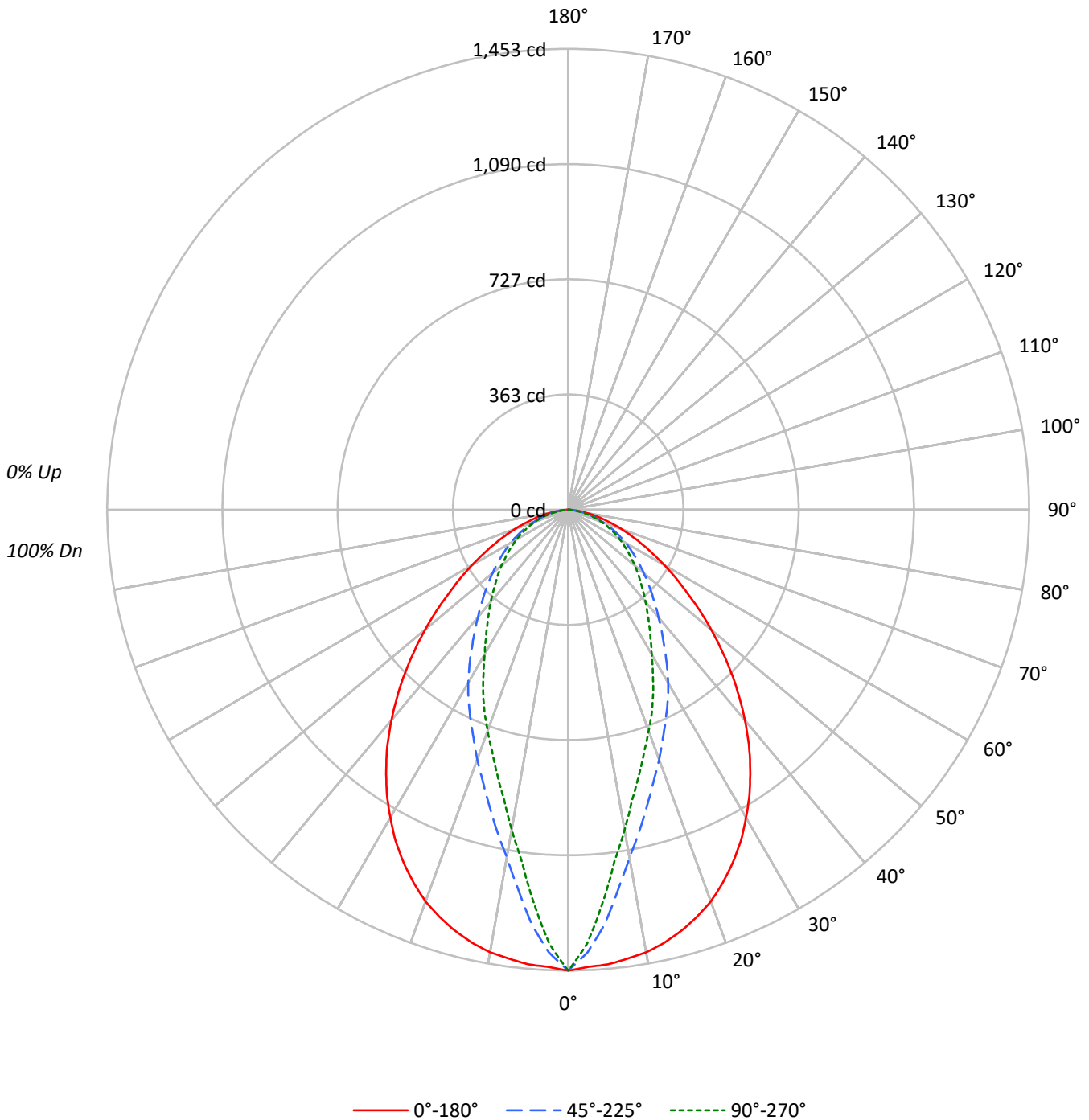
Lumens per Lamp: N/A
Luminaire Lumens: 2038.1 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	12848	12848	12848
5°	12773	11654	11046
10°	12720	9990	9192
15°	12588	8816	7908
20°	12367	7887	6984
25°	11974	7098	6187
30°	11445	6435	5370
35°	10795	5705	4807
40°	10000	5111	4380
45°	9089	4649	4041
50°	8097	4278	3776
55°	7063	3975	3531
60°	6201	3701	3326
65°	5368	3414	3107
70°	4648	3094	2862
75°	3870	2733	2514
80°	2999	2215	2052
85°	1887	1491	1359

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9089 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.7	6.0
10°-20°	289.0	14.2
20°-30°	369.3	18.1
30°-40°	375.0	18.4
40°-50°	332.5	16.3
50°-60°	261.3	12.8
60°-70°	177.9	8.7
70°-80°	91.3	4.5
80°-90°	20.2	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°	779.9	38.3
0°-40°	1154.9	56.7
0°-60°	1748.6	85.8
0°-90°	2038.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2038.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1453	1453	1453	1453	1453	
5°	1439	1403	1313	1263	1245	137
15°	1375	1148	963	884	864	387
25°	1227	900	728	658	634	564
35°	1000	682	529	461	445	624
45°	727	491	372	333	323	560
55°	458	327	258	235	229	414
65°	257	198	163	152	148	257
75°	113	93	80	76	74	122
85°	19	17	15	15	13	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1453.2	1453.2	1453.2	1453.2	1453.2
2.5°	1443.0	1444.9	1396.9	1379.7	1369.4
5°	1439.2	1402.7	1313.1	1262.6	1244.6
7.5°	1427.7	1348.3	1206.9	1137.1	1118.6
10°	1416.8	1286.2	1112.8	1043.7	1023.9
12.5°	1398.9	1217.8	1037.3	958.0	934.3
15°	1375.2	1148.0	963.1	883.7	863.9
17.5°	1347.0	1081.5	895.9	819.7	798.0
20°	1314.4	1020.0	838.3	760.2	742.3
22.5°	1273.4	959.2	779.4	709.0	689.2
25°	1227.4	899.7	727.6	657.8	634.2
27.5°	1178.1	842.1	679.6	602.2	577.2
30°	1121.1	787.1	630.3	549.0	526.0
32.5°	1063.5	732.7	578.5	501.7	483.1
35°	1000.2	681.5	528.6	461.4	445.4
37.5°	936.2	632.2	483.8	424.9	410.8
40°	866.4	584.2	442.8	391.0	379.5
42.5°	796.7	536.2	405.7	360.9	350.0
45°	726.9	490.8	371.8	333.4	323.2
47.5°	656.6	446.0	340.4	306.5	298.2
50°	588.7	403.8	311.0	281.6	274.5
52.5°	522.8	364.1	282.8	257.9	250.2
55°	458.2	327.0	257.9	234.8	229.1
57.5°	403.1	292.4	232.9	213.1	208.6
60°	350.7	259.2	209.3	192.6	188.1
62.5°	301.4	228.4	185.6	172.1	168.9
65°	256.6	198.4	163.2	151.7	148.5
67.5°	215.7	170.9	140.1	131.8	129.3
70°	179.8	143.3	119.7	112.6	110.7
72.5°	144.0	117.1	99.2	94.1	92.1
75°	113.3	93.4	80.0	76.1	73.6
77.5°	85.1	71.0	61.4	58.2	56.3
80°	58.9	50.6	43.5	42.2	40.3
82.5°	37.1	32.0	28.2	27.5	25.6
85°	18.6	17.3	14.7	14.7	13.4
87.5°	6.4	5.8	5.8	5.8	5.1
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	17.77	19.26	18.14	19.58	19.89	15.10	16.59	15.47	16.90	17.22
	3H	19.37	20.70	19.75	21.03	21.39	16.70	18.03	17.08	18.36	18.72
	4H	19.90	21.15	20.30	21.50	21.88	17.26	18.51	17.66	18.86	19.23
	6H	20.23	21.38	20.64	21.75	22.14	17.61	18.77	18.02	19.13	19.53
	8H	20.31	21.40	20.73	21.79	22.20	17.70	18.80	18.13	19.19	19.59
	12H	20.34	21.39	20.77	21.77	22.20	17.74	18.79	18.17	19.17	19.60
4H	2H	18.00	19.25	18.40	19.60	19.98	15.78	17.03	16.18	17.38	17.75
	3H	19.79	20.82	20.20	21.22	21.63	17.56	18.60	17.98	19.00	19.40
	4H	20.43	21.36	20.86	21.78	22.22	18.23	19.16	18.66	19.58	20.01
	6H	20.87	21.68	21.33	22.13	22.59	18.68	19.49	19.14	19.94	20.40
	8H	20.99	21.74	21.45	22.19	22.65	18.80	19.56	19.26	20.00	20.47
	12H	21.04	21.72	21.53	22.20	22.67	18.86	19.53	19.34	20.01	20.49
8H	4H	20.53	21.29	21.00	21.73	22.20	18.53	19.28	18.99	19.73	20.20
	6H	21.05	21.67	21.55	22.16	22.64	19.08	19.70	19.57	20.19	20.67
	8H	21.21	21.76	21.72	22.27	22.76	19.24	19.80	19.76	20.31	20.80
	12H	21.31	21.80	21.82	22.29	22.86	19.35	19.84	19.86	20.33	20.90
12H	4H	20.52	21.20	21.01	21.68	22.15	18.55	19.22	19.03	19.70	20.18
	6H	21.04	21.60	21.56	22.11	22.60	19.11	19.67	19.63	20.18	20.67
	8H	21.24	21.73	21.75	22.22	22.79	19.33	19.82	19.84	20.31	20.88