

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: P1217365

Luminaire Tested: S124DRP-H485D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217365
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-H485D835-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

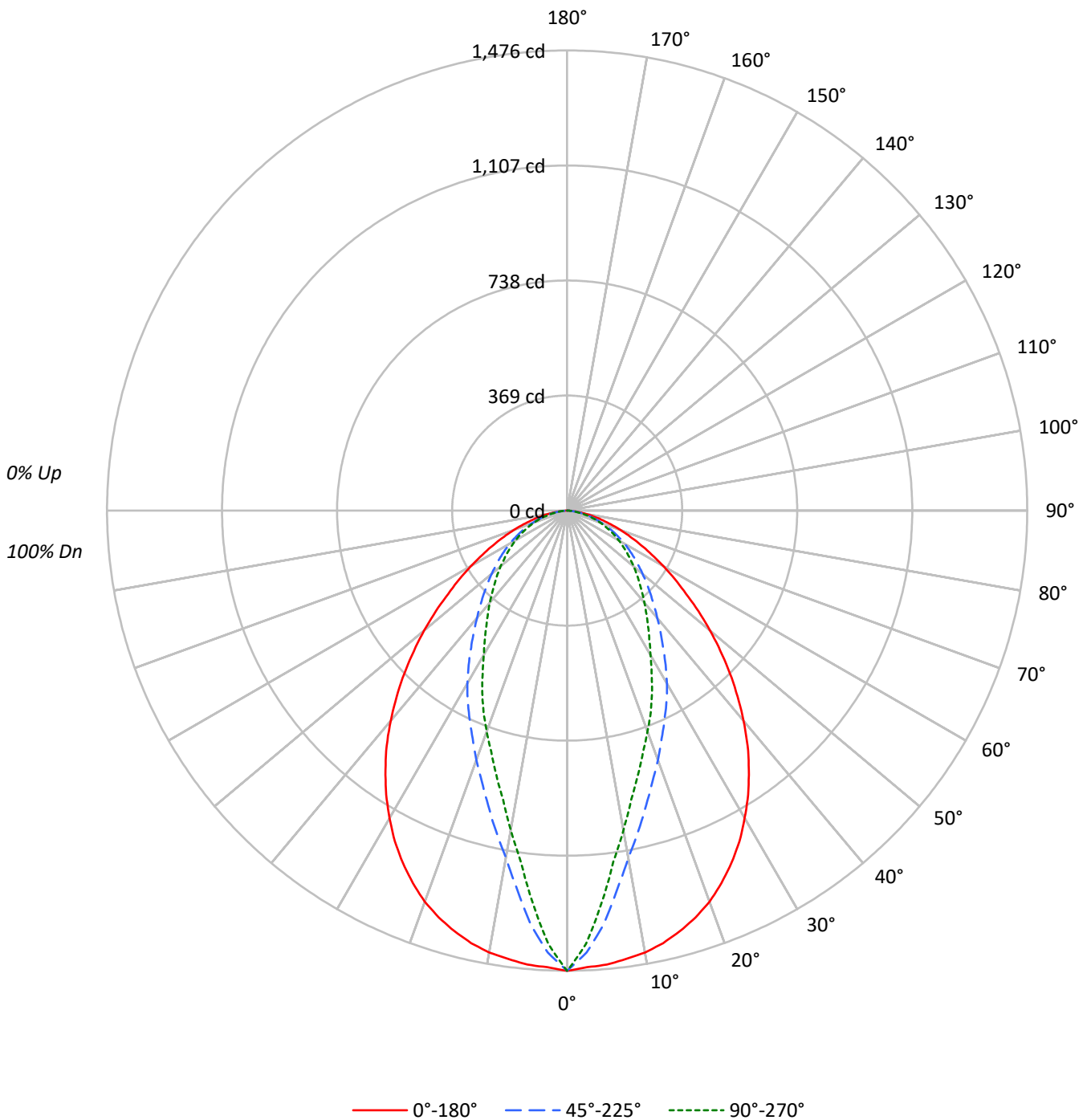
Lumens per Lamp: N/A
Luminaire Lumens: 2070.5 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
Input Voltage (V): 120
Input Current (Ain): 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	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°	13053	13053	13053
5°	12975	11839	11222
10°	12922	10149	9338
15°	12787	8956	8033
20°	12563	8013	7095
25°	12163	7210	6284
30°	11627	6537	5456
35°	10967	5796	4883
40°	10159	5191	4449
45°	9234	4723	4105
50°	8227	4345	3836
55°	7175	4039	3587
60°	6299	3759	3379
65°	5454	3469	3155
70°	4723	3143	2908
75°	3932	2777	2555
80°	3045	2250	2088
85°	1917	1522	1390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9234 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	6.0
10°-20°	293.6	14.2
20°-30°	375.1	18.1
30°-40°	381.0	18.4
40°-50°	337.7	16.3
50°-60°	265.4	12.8
60°-70°	180.7	8.7
70°-80°	92.8	4.5
80°-90°	20.6	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°	792.3	38.3
0°-40°	1173.3	56.7
0°-60°	1776.4	85.8
0°-90°	2070.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2070.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1476	1476	1476	1476	1476	
5°	1462	1425	1334	1283	1264	139
15°	1397	1166	978	898	878	393
25°	1247	914	739	668	644	573
35°	1016	692	537	469	452	634
45°	738	499	378	339	328	569
55°	466	332	262	239	233	420
65°	261	202	166	154	151	261
75°	115	95	81	77	75	124
85°	19	18	15	15	14	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1476.3	1476.3	1476.3	1476.3	1476.3
2.5°	1465.9	1467.9	1419.1	1401.6	1391.1
5°	1462.0	1425.0	1333.9	1282.6	1264.4
7.5°	1450.3	1369.7	1226.0	1155.2	1136.3
10°	1439.3	1306.6	1130.5	1060.3	1040.1
12.5°	1421.1	1237.1	1053.8	973.2	949.1
15°	1397.0	1166.2	978.4	897.7	877.6
17.5°	1368.4	1098.6	910.1	832.7	810.6
20°	1335.2	1036.2	851.6	772.3	754.1
22.5°	1293.6	974.5	791.8	720.3	700.1
25°	1246.8	914.0	739.1	668.3	644.2
27.5°	1196.8	855.5	690.4	611.7	586.4
30°	1138.9	799.6	640.3	557.8	534.4
32.5°	1080.4	744.3	587.7	509.7	490.8
35°	1016.1	692.3	537.0	468.7	452.4
37.5°	951.1	642.3	491.5	431.6	417.3
40°	880.2	593.5	449.8	397.2	385.5
42.5°	809.3	544.8	412.1	366.6	355.6
45°	738.5	498.6	377.7	338.7	328.3
47.5°	667.0	453.1	345.8	311.4	302.9
50°	598.1	410.2	315.9	286.0	278.9
52.5°	531.1	369.9	287.3	262.0	254.2
55°	465.5	332.2	262.0	238.6	232.7
57.5°	409.5	297.1	236.6	216.5	211.9
60°	356.2	263.3	212.6	195.7	191.1
62.5°	306.2	232.1	188.5	174.9	171.6
65°	260.7	201.5	165.8	154.1	150.8
67.5°	219.1	173.6	142.4	133.9	131.3
70°	182.7	145.6	121.6	114.4	112.5
72.5°	146.3	119.0	100.8	95.6	93.6
75°	115.1	94.9	81.3	77.4	74.8
77.5°	86.5	72.2	62.4	59.2	57.2
80°	59.8	51.4	44.2	42.9	41.0
82.5°	37.7	32.5	28.6	28.0	26.0
85°	18.9	17.6	15.0	15.0	13.7
87.5°	6.5	5.9	5.9	5.9	5.2
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	17.83	19.32	18.20	19.63	19.95	15.16	16.64	15.52	16.96	17.27
	3H	19.42	20.76	19.80	21.08	21.45	16.75	18.09	17.13	18.42	18.78
	4H	19.95	21.20	20.35	21.55	21.93	17.31	18.56	17.71	18.91	19.29
	6H	20.28	21.44	20.70	21.81	22.20	17.67	18.82	18.08	19.19	19.58
	8H	20.36	21.46	20.79	21.85	22.25	17.75	18.85	18.18	19.24	19.64
	12H	20.39	21.44	20.82	21.82	22.25	17.79	18.84	18.22	19.22	19.65
4H	2H	18.06	19.31	18.46	19.66	20.04	15.83	17.08	16.23	17.43	17.81
	3H	19.84	20.88	20.25	21.28	21.68	17.62	18.66	18.03	19.06	19.46
	4H	20.48	21.42	20.92	21.83	22.27	18.28	19.22	18.72	19.63	20.07
	6H	20.93	21.74	21.39	22.18	22.64	18.74	19.55	19.20	19.99	20.45
	8H	21.04	21.80	21.51	22.24	22.71	18.86	19.61	19.32	20.06	20.53
	12H	21.10	21.77	21.58	22.25	22.72	18.92	19.59	19.40	20.07	20.54
8H	4H	20.59	21.34	21.05	21.79	22.26	18.58	19.34	19.05	19.78	20.25
	6H	21.11	21.73	21.60	22.22	22.70	19.13	19.76	19.63	20.25	20.73
	8H	21.26	21.82	21.78	22.33	22.82	19.30	19.86	19.82	20.37	20.86
	12H	21.36	21.85	21.87	22.35	22.91	19.41	19.90	19.92	20.39	20.96
12H	4H	20.58	21.25	21.06	21.73	22.20	18.61	19.28	19.09	19.76	20.23
	6H	21.10	21.66	21.61	22.17	22.66	19.17	19.73	19.68	20.24	20.73
	8H	21.29	21.78	21.80	22.28	22.84	19.38	19.88	19.89	20.37	20.93