

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: P1217373

Luminaire Tested: S124DRP-H675D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217373
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-H675D830-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

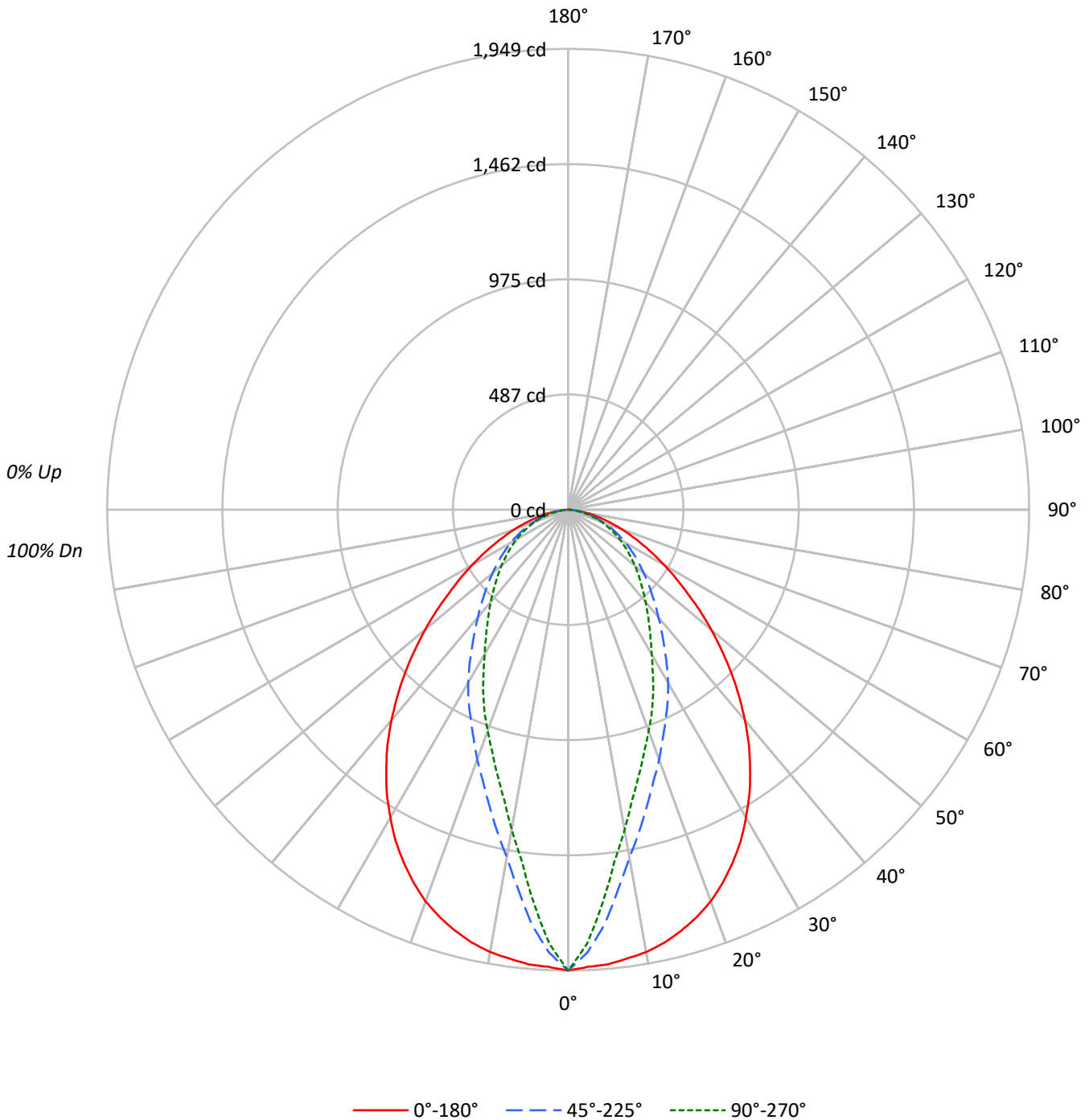
Lumens per Lamp: N/A
Luminaire Lumens: 2733.1 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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

TEST NUMBER: P1217373

CATALOG NUMBER: S124DRP-H675D830-X4F0-XX-UDD-G-W

Luminous Intensity Polar Plot





TEST NUMBER: P1217373

CATALOG NUMBER: S124DRP-H675D830-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	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°	17230	17230	17230
5°	17128	15627	14813
10°	17056	13397	12326
15°	16880	11821	10603
20°	16584	10576	9366
25°	16055	9518	8296
30°	15348	8629	7202
35°	14476	7650	6446
40°	13410	6853	5874
45°	12189	6234	5418
50°	10859	5736	5063
55°	9471	5330	4735
60°	8314	4962	4461
65°	7199	4577	4165
70°	6233	4149	3839
75°	5189	3665	3372
80°	4017	2973	2755
85°	2526	1998	1826

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12189 cd/sqm



TEST NUMBER: P1217373

CATALOG NUMBER: S124DRP-H675D830-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.1	6.0
10°-20°	387.5	14.2
20°-30°	495.2	18.1
30°-40°	502.9	18.4
40°-50°	445.8	16.3
50°-60°	350.3	12.8
60°-70°	238.6	8.7
70°-80°	122.5	4.5
80°-90°	27.1	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°	1045.8	38.3
0°-40°	1548.7	56.7
0°-60°	2344.9	85.8
0°-90°	2733.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2733.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1949	1949	1949	1949	1949	
5°	1930	1881	1761	1693	1669	183
15°	1844	1539	1292	1185	1158	519
25°	1646	1206	976	882	850	756
35°	1341	914	709	619	597	837
45°	975	658	499	447	433	751
55°	614	438	346	315	307	555
65°	344	266	219	203	199	344
75°	152	125	107	102	99	163
85°	25	23	20	20	18	33
90°	0	0	0	0	0	



TEST NUMBER: P1217373

CATALOG NUMBER: S124DRP-H675D830-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1948.8	1948.8	1948.8	1948.8	1948.8
2.5°	1935.0	1937.6	1873.2	1850.1	1836.3
5°	1929.9	1881.0	1760.8	1693.0	1669.0
7.5°	1914.4	1808.0	1618.4	1524.9	1500.0
10°	1899.8	1724.8	1492.2	1399.6	1373.0
12.5°	1875.8	1633.0	1391.0	1284.6	1252.8
15°	1844.1	1539.4	1291.5	1185.0	1158.4
17.5°	1806.3	1450.2	1201.3	1099.2	1070.1
20°	1762.6	1367.8	1124.1	1019.4	995.4
22.5°	1707.6	1286.3	1045.2	950.8	924.2
25°	1645.8	1206.5	975.7	882.1	850.4
27.5°	1579.8	1129.3	911.3	807.5	774.0
30°	1503.4	1055.5	845.2	736.3	705.4
32.5°	1426.2	982.5	775.7	672.8	647.9
35°	1341.2	913.9	708.8	618.7	597.2
37.5°	1255.4	847.8	648.7	569.8	550.9
40°	1161.9	783.5	593.8	524.3	508.9
42.5°	1068.3	719.1	544.0	484.0	469.4
45°	974.8	658.2	498.6	447.1	433.3
47.5°	880.4	598.1	456.5	411.0	399.9
50°	789.5	541.5	417.0	377.6	368.1
52.5°	701.1	488.3	379.3	345.8	335.5
55°	614.4	438.5	345.8	314.9	307.2
57.5°	540.6	392.2	312.4	285.7	279.7
60°	470.2	347.5	280.6	258.3	252.3
62.5°	404.2	306.3	248.9	230.8	226.5
65°	344.1	266.0	218.8	203.4	199.1
67.5°	289.2	229.1	187.9	176.8	173.3
70°	241.1	192.2	160.5	151.0	148.5
72.5°	193.1	157.0	133.0	126.1	123.6
75°	151.9	125.3	107.3	102.1	98.7
77.5°	114.1	95.2	82.4	78.1	75.5
80°	78.9	67.8	58.4	56.6	54.1
82.5°	49.8	42.9	37.8	36.9	34.3
85°	24.9	23.2	19.7	19.7	18.0
87.5°	8.6	7.7	7.7	7.7	6.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1217373

CATALOG NUMBER: S124DRP-H675D830-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	18.80	20.28	19.16	20.60	20.91	16.12	17.61	16.48	17.92	18.23
	3H	20.39	21.72	20.77	22.05	22.41	17.72	19.05	18.10	19.38	19.74
	4H	20.92	22.17	21.32	22.52	22.90	18.28	19.53	18.68	19.87	20.25
	6H	21.25	22.40	21.66	22.77	23.16	18.63	19.79	19.04	20.15	20.54
	8H	21.33	22.42	21.75	22.81	23.22	18.72	19.82	19.15	20.21	20.61
	12H	21.36	22.41	21.79	22.79	23.22	18.75	19.81	19.19	20.19	20.62
4H	2H	19.02	20.27	19.42	20.62	21.00	16.79	18.04	17.19	18.39	18.77
	3H	20.81	21.84	21.22	22.24	22.65	18.58	19.62	18.99	20.02	20.42
	4H	21.45	22.38	21.88	22.80	23.24	19.25	20.18	19.68	20.59	21.03
	6H	21.89	22.70	22.35	23.15	23.61	19.70	20.51	20.16	20.96	21.42
	8H	22.00	22.76	22.47	23.21	23.67	19.82	20.58	20.28	21.02	21.49
	12H	22.06	22.74	22.55	23.22	23.69	19.88	20.55	20.36	21.03	21.50
8H	4H	21.55	22.31	22.02	22.75	23.22	19.55	20.30	20.01	20.75	21.21
	6H	22.07	22.69	22.57	23.18	23.66	20.10	20.72	20.59	21.21	21.69
	8H	22.22	22.78	22.74	23.29	23.78	20.26	20.82	20.78	21.33	21.82
	12H	22.33	22.82	22.84	23.31	23.88	20.37	20.86	20.88	21.36	21.92
12H	4H	21.54	22.22	22.03	22.70	23.17	19.57	20.24	20.05	20.72	21.19
	6H	22.06	22.62	22.58	23.13	23.62	20.13	20.69	20.65	21.20	21.69
	8H	22.26	22.75	22.77	23.24	23.81	20.35	20.84	20.86	21.33	21.90