

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P998405

Luminaire Tested: SA2XXDIP-B485D1080UB30-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998405
REPORT IS A COMBINATION OF REPORTS P984145 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB30-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

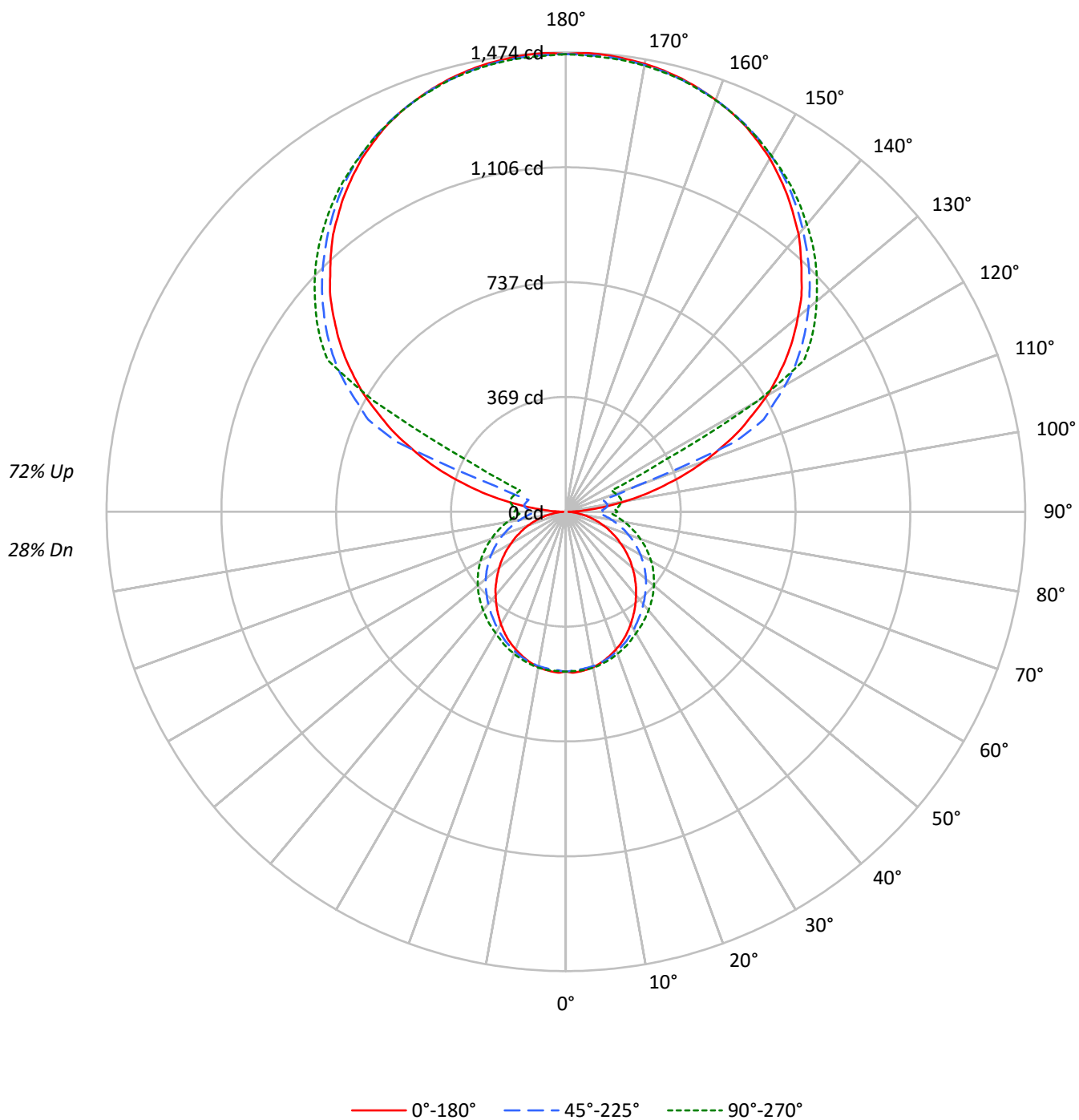
Lumens per Lamp: N/A
Luminaire Lumens: 6265.0 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 59
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	92	87	83	80	82	78	75	72	61	58	56	45	43	42	30	29	28
2	83	76	70	64	74	68	63	58	53	49	46	39	36	34	26	25	23
3	76	66	59	53	67	59	53	48	46	42	38	34	31	29	23	21	19
4	69	58	51	45	61	52	46	40	41	36	32	30	27	24	20	18	16
5	63	52	44	38	56	46	39	34	36	31	27	27	23	21	18	16	14
6	58	46	38	32	52	41	35	29	33	27	24	24	21	18	16	14	12
7	54	41	34	28	48	37	30	26	29	24	21	22	18	16	15	13	11
8	50	37	30	25	44	34	27	22	27	22	18	20	16	14	14	11	10
9	46	34	27	22	41	31	24	20	24	19	16	18	15	12	12	10	9
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8122	8122	8122
5°	8159	7775	7733
10°	8105	7506	7397
15°	7990	7228	7054
20°	7846	6935	6728
25°	7703	6655	6432
30°	7505	6371	6139
35°	7302	6097	5924
40°	7090	5859	5711
45°	6886	5643	5524
50°	6669	5445	5341
55°	6440	5234	5153
60°	6160	5015	4957
65°	5869	4763	4730
70°	5539	4492	4486
75°	5119	4221	4257
80°	4455	3940	4018
85°	3786	3674	3812

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6886 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	0.8
10°-20°	139.5	2.2
20°-30°	211.4	3.4
30°-40°	257.4	4.1
40°-50°	277.0	4.4
50°-60°	269.0	4.3
60°-70°	234.9	3.7
70°-80°	180.8	2.9
80°-90°	123.7	2.0
90°-100°	132.0	2.1
100°-110°	241.5	3.9
110°-120°	519.0	8.3
120°-130°	816.3	13.0
130°-140°	852.7	13.6
140°-150°	785.4	12.5
150°-160°	630.1	10.1
160°-170°	406.0	6.5
170°-180°	139.7	2.2
0°-30°	399.6	6.4
0°-40°	657.0	10.5
0°-60°	1202.9	19.2
0°-90°	1742.3	27.8
90°-120°	892.4	14.2
90°-150°	3346.8	53.4
90°-180°	4523.0	72.2
0°-180°	6265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	515	512	508	512	512	49
15°	491	492	492	499	498	138
25°	446	451	458	467	469	205
35°	384	397	411	428	433	240
45°	315	335	361	384	392	243
55°	242	268	307	334	344	216
65°	165	202	245	276	286	164
75°	92	133	181	213	222	97
85°	27	73	120	152	162	28
90°	8	63	119	154	166	9
95°	75	75	127	160	168	86
105°	327	380	129	166	179	349
115°	614	640	700	230	162	604
125°	865	879	923	951	960	772
135°	1070	1086	1104	1130	1134	826
145°	1240	1239	1257	1269	1267	776
155°	1365	1356	1368	1375	1366	629
165°	1438	1432	1435	1443	1435	406
175°	1471	1464	1466	1474	1463	140
180°	1468	1468	1468	1468	1468	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	513.1	513.1	513.1	513.1	513.1
2.5°	516.9	514.6	509.4	513.1	511.7
5°	514.6	512.4	507.9	512.4	511.7
7.5°	510.9	509.4	505.7	510.9	510.2
10°	506.5	505.0	502.7	508.7	507.9
12.5°	499.0	499.8	498.3	504.2	503.5
15°	490.8	492.3	492.3	499.0	498.3
17.5°	480.4	483.4	485.6	492.3	492.3
20°	470.0	473.7	476.7	484.9	484.9
22.5°	458.9	463.3	467.8	476.0	477.5
25°	446.2	451.4	458.1	467.0	469.3
27.5°	431.3	439.5	447.0	458.1	459.6
30°	416.5	426.1	435.8	447.7	449.9
32.5°	400.1	411.3	423.2	437.3	441.8
35°	384.5	397.1	411.3	427.6	432.8
37.5°	367.4	381.5	399.4	417.2	422.4
40°	350.3	366.6	386.7	406.1	412.8
42.5°	333.9	350.3	374.1	395.6	402.3
45°	315.3	335.4	361.4	384.5	391.9
47.5°	297.5	319.0	348.8	372.6	380.8
50°	278.9	301.9	335.4	360.7	368.9
52.5°	261.0	285.6	321.3	347.3	356.2
55°	241.7	268.5	307.1	333.9	343.6
57.5°	223.1	252.9	291.5	320.5	330.2
60°	203.0	235.0	277.4	305.7	316.1
62.5°	185.2	218.6	261.0	291.5	301.2
65°	165.1	201.5	245.4	275.9	285.6
67.5°	147.3	185.2	229.8	260.3	270.7
70°	127.9	166.6	212.7	244.7	253.6
72.5°	110.1	150.2	197.1	228.3	239.5
75°	91.5	133.1	180.7	212.7	222.4
77.5°	73.6	116.8	165.1	197.1	207.5
80°	55.8	101.1	149.5	180.7	191.1
82.5°	40.9	85.5	134.6	165.8	175.5
85°	26.8	72.9	120.5	151.7	162.1
87.5°	16.4	61.0	108.6	139.1	148.7
90°	8.5	63.3	119.4	154.5	165.5
92.5°	33.3	68.4	117.0	148.1	158.1
95°	75.0	74.9	126.9	160.5	168.4
97.5°	129.5	74.4	134.5	165.2	175.2
100°	193.2	75.2	135.0	171.0	181.3
102.5°	262.7	285.0	131.9	170.3	181.7
105°	326.7	380.1	128.8	166.5	178.9
107.5°	402.1	446.6	125.7	162.6	175.1
110°	473.6	510.8	240.2	157.8	170.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	541.6	572.7	588.8	154.7	166.1
115°	613.9	640.1	700.1	230.5	162.2
117.5°	675.8	703.0	752.3	622.7	351.8
120°	745.9	764.8	813.8	847.3	712.1
122.5°	805.4	823.2	871.9	898.4	906.2
125°	865.2	879.1	923.0	950.6	960.5
127.5°	920.5	934.6	970.6	999.8	1007.6
130°	972.5	988.7	1016.1	1045.6	1050.6
132.5°	1025.7	1038.7	1061.6	1088.2	1093.2
135°	1069.5	1086.5	1103.5	1129.8	1133.5
137.5°	1116.2	1129.0	1143.4	1168.1	1170.1
140°	1161.9	1169.7	1182.9	1204.4	1203.5
142.5°	1200.2	1206.9	1220.7	1238.1	1236.5
145°	1239.8	1238.8	1256.8	1268.8	1267.2
147.5°	1274.9	1271.7	1289.8	1295.8	1293.8
150°	1308.9	1301.5	1318.5	1324.8	1319.5
152.5°	1337.6	1329.1	1345.0	1351.4	1344.0
155°	1365.2	1355.6	1368.4	1374.8	1366.3
157.5°	1387.5	1379.0	1388.6	1396.0	1387.5
160°	1406.6	1400.3	1406.6	1413.0	1405.6
162.5°	1423.6	1417.3	1422.6	1430.0	1420.4
165°	1438.5	1432.1	1435.3	1442.8	1435.3
167.5°	1450.2	1443.8	1447.0	1454.4	1444.9
170°	1459.8	1453.4	1455.5	1462.9	1453.4
172.5°	1466.1	1459.8	1461.9	1469.3	1459.8
175°	1471.4	1464.0	1466.1	1473.6	1462.9
177.5°	1473.6	1466.1	1467.2	1474.6	1465.1
180°	1468.3	1468.3	1468.3	1468.3	1468.3

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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	10.00	10.71	11.12	11.83	13.38	13.07	13.79	14.19	14.90	16.46
	3H	11.45	12.09	12.58	13.22	14.79	15.65	16.30	16.78	17.42	18.99
	4H	11.92	12.53	13.05	13.66	15.23	16.90	17.51	18.03	18.64	20.21
	6H	12.19	12.76	13.34	13.89	15.48	18.19	18.75	19.33	19.88	21.47
	8H	12.25	12.79	13.40	13.93	15.51	18.84	19.38	19.99	20.53	22.11
	12H	12.26	12.77	13.41	13.91	15.52	19.56	20.08	20.72	21.22	22.82
4H	2H	11.03	11.65	12.18	12.77	14.35	13.39	14.00	14.53	15.13	16.70
	3H	12.73	13.25	13.88	14.40	15.98	16.17	16.68	17.32	17.84	19.42
	4H	13.34	13.82	14.50	14.96	16.57	17.58	18.06	18.73	19.20	20.80
	6H	13.75	14.16	14.91	15.33	16.92	19.04	19.45	20.19	20.61	22.21
	8H	13.86	14.24	15.01	15.40	17.01	19.79	20.18	20.95	21.33	22.95
	12H	13.89	14.24	15.07	15.41	17.03	20.61	20.96	21.79	22.13	23.75
8H	4H	14.12	14.51	15.28	15.66	17.28	17.71	18.10	18.87	19.25	20.86
	6H	14.75	15.07	15.93	16.27	17.88	19.33	19.66	20.51	20.85	22.46
	8H	14.97	15.25	16.15	16.43	18.06	20.22	20.50	21.40	21.68	23.31
	12H	15.10	15.35	16.28	16.52	18.18	21.21	21.46	22.39	22.63	24.29
12H	4H	14.31	14.67	15.49	15.83	17.45	17.68	18.03	18.85	19.19	20.81
	6H	15.08	15.37	16.26	16.54	18.17	19.36	19.64	20.54	20.81	22.44
	8H	15.38	15.63	16.57	16.80	18.46	20.28	20.53	21.46	21.70	23.36