

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: P998409

Luminaire Tested: SA2XXDIP-B485D1080UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998409
REPORT IS A COMBINATION OF REPORTS P984149 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-F1
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

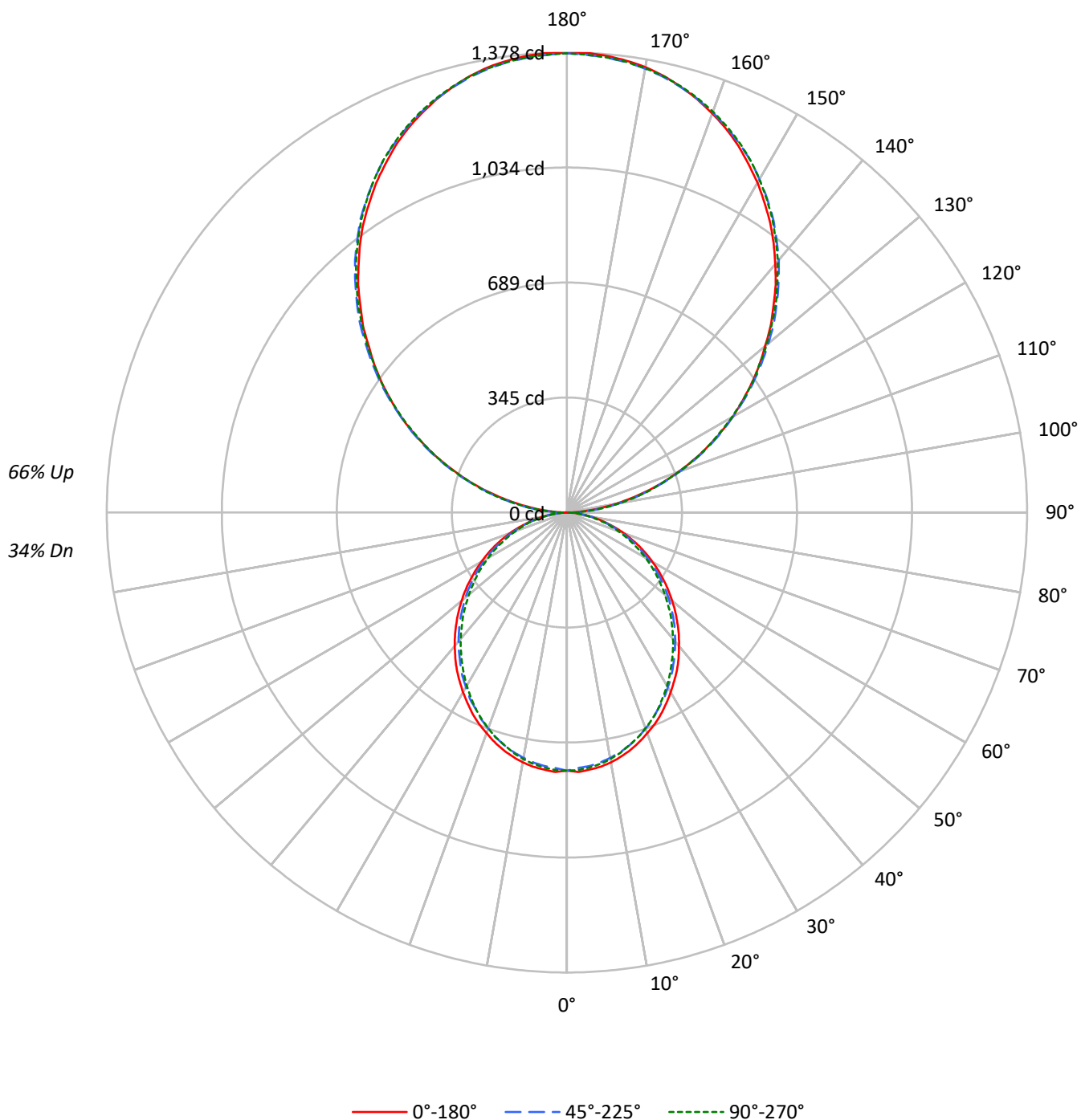
Lumens per Lamp: N/A
Luminaire Lumens: 5818.0 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	36	35
2	86	78	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	27	25
4	71	61	53	47	64	55	49	44	45	40	36	35	31	29	25	23	21
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	23	21	19
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15
8	52	40	32	27	46	36	29	25	29	24	21	23	20	17	17	15	13
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12244	12244	12244
5°	12264	11672	11588
10°	12164	11139	10918
15°	11986	10603	10214
20°	11745	10020	9546
25°	11505	9411	8879
30°	11204	8840	8180
35°	10918	8236	7492
40°	10567	7641	6843
45°	10217	7050	6206
50°	9836	6449	5545
55°	9433	5807	4919
60°	8982	5109	4268
65°	8489	4404	3584
70°	7860	3628	2894
75°	6993	2796	2236
80°	5940	1900	1438
85°	4308	884	611

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10217 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	1.3
10°-20°	204.8	3.5
20°-30°	301.0	5.2
30°-40°	349.6	6.0
40°-50°	349.2	6.0
50°-60°	304.5	5.2
60°-70°	225.1	3.9
70°-80°	127.3	2.2
80°-90°	37.5	0.6
90°-100°	85.1	1.5
100°-110°	270.5	4.6
110°-120°	462.9	8.0
120°-130°	608.8	10.5
130°-140°	683.4	11.7
140°-150°	670.1	11.5
150°-160°	562.1	9.7
160°-170°	372.8	6.4
170°-180°	130.3	2.2
0°-30°	578.7	9.9
0°-40°	928.3	16.0
0°-60°	1582.0	27.2
0°-90°	1971.9	33.9
90°-120°	818.5	14.1
90°-150°	2780.8	47.8
90°-180°	3846.0	66.1
0°-180°	5818.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	774	771	762	768	767	73
15°	736	732	722	725	722	207
25°	666	660	648	649	648	307
35°	575	568	556	551	547	359
45°	468	463	452	443	440	361
55°	354	350	341	332	328	317
65°	239	234	227	220	216	236
75°	125	124	120	115	117	133
85°	30	30	29	27	26	34
90°	1	15	41	38	40	6
95°	60	72	74	74	72	67
105°	250	253	255	258	258	264
115°	464	471	469	468	464	459
125°	676	686	683	679	678	604
135°	874	887	889	888	885	675
145°	1061	1069	1076	1077	1073	663
155°	1213	1217	1220	1226	1222	558
165°	1320	1319	1319	1327	1321	372
175°	1373	1370	1368	1376	1369	130
180°	1376	1376	1376	1376	1376	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	773.5	773.5	773.5	773.5	773.5
2.5°	778.0	774.3	766.1	773.5	772.0
5°	773.5	770.6	762.4	768.3	766.8
7.5°	768.3	763.9	755.7	761.6	760.1
10°	760.1	754.9	746.0	752.0	749.7
12.5°	749.0	744.5	735.6	739.3	737.8
15°	736.3	731.9	722.2	725.2	721.5
17.5°	720.7	716.3	706.6	710.3	706.6
20°	703.6	699.2	688.7	691.0	688.0
22.5°	686.5	679.8	670.2	670.2	668.7
25°	666.4	660.5	647.8	649.3	647.8
27.5°	644.1	638.9	629.2	627.0	623.3
30°	621.8	615.9	604.7	602.5	599.5
32.5°	598.0	593.5	581.6	577.2	574.2
35°	574.9	567.5	555.6	551.1	547.4
37.5°	548.9	542.2	530.3	525.1	521.4
40°	522.1	516.2	504.3	497.6	494.6
42.5°	496.1	490.2	478.3	470.8	466.4
45°	467.8	462.6	451.5	443.3	440.3
47.5°	440.3	435.1	423.2	415.0	410.6
50°	411.3	407.6	397.2	386.8	383.0
52.5°	383.0	377.8	368.2	360.0	354.8
55°	354.0	349.6	340.7	331.7	328.0
57.5°	325.0	321.3	311.6	302.7	299.7
60°	296.0	293.1	282.6	274.5	272.2
62.5°	267.8	262.6	255.1	247.7	244.7
65°	238.8	234.3	226.9	220.2	216.4
67.5°	209.0	205.3	198.6	193.4	190.4
70°	181.5	178.5	171.8	166.6	163.6
72.5°	153.2	150.2	146.5	141.3	139.1
75°	125.0	123.5	119.7	115.3	116.8
77.5°	99.7	96.7	95.2	93.0	90.7
80°	74.4	73.6	72.1	69.9	68.4
82.5°	50.6	50.6	49.8	46.9	46.9
85°	30.5	29.8	29.0	26.8	26.0
87.5°	13.4	11.9	10.4	8.2	7.4
90°	1.2	15.1	40.6	38.3	39.5
92.5°	25.5	34.8	36.0	37.1	37.1
95°	60.4	72.0	74.3	74.3	72.0
97.5°	101.0	111.4	116.1	116.1	116.1
100°	147.4	156.7	160.2	160.2	159.0
102.5°	196.2	203.2	207.8	209.0	207.8
105°	249.6	253.1	255.4	257.7	257.7
107.5°	303.0	307.6	307.6	308.8	303.0
110°	354.1	361.0	361.0	361.0	357.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	409.8	416.8	415.6	412.1	409.8
115°	464.4	471.3	469.0	467.8	464.4
117.5°	518.9	528.2	522.4	518.9	515.4
120°	573.5	582.8	573.5	573.5	570.0
122.5°	623.4	635.0	629.2	625.7	623.4
125°	675.6	686.1	682.6	679.1	678.0
127.5°	726.7	739.5	734.8	730.2	726.7
130°	774.3	789.4	787.1	784.8	780.1
132.5°	827.7	839.3	840.5	834.7	831.2
135°	874.2	886.9	889.2	888.1	884.6
137.5°	925.2	935.7	938.0	936.8	932.2
140°	970.5	981.0	986.8	986.8	982.1
142.5°	1016.9	1027.4	1030.9	1032.0	1027.4
145°	1061.1	1069.2	1076.1	1077.3	1072.7
147.5°	1100.5	1111.0	1115.6	1117.9	1113.3
150°	1141.2	1148.1	1152.8	1156.3	1152.8
152.5°	1177.1	1184.1	1189.9	1194.6	1189.9
155°	1213.1	1216.6	1220.1	1225.9	1222.4
157.5°	1244.5	1246.8	1249.1	1257.2	1251.4
160°	1272.3	1274.7	1275.8	1282.8	1278.1
162.5°	1297.9	1297.9	1299.0	1307.2	1301.4
165°	1319.9	1318.8	1318.8	1326.9	1321.1
167.5°	1339.7	1336.2	1336.2	1344.3	1338.5
170°	1354.8	1351.3	1350.1	1358.2	1351.3
172.5°	1365.2	1361.7	1360.6	1368.7	1361.7
175°	1373.3	1369.9	1367.5	1375.7	1368.7
177.5°	1378.0	1374.5	1372.2	1379.1	1372.2
180°	1375.7	1375.7	1375.7	1375.7	1375.7

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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	12.23	12.96	13.31	14.05	15.53	13.01	13.74	14.09	14.83	16.31
	3H	13.56	14.21	14.65	15.31	16.81	14.63	15.28	15.72	16.38	17.88
	4H	13.96	14.58	15.06	15.67	17.18	15.21	15.84	16.32	16.93	18.44
	6H	14.17	14.74	15.28	15.84	17.36	15.61	16.18	16.72	17.28	18.80
	8H	14.19	14.74	15.31	15.85	17.37	15.71	16.26	16.83	17.37	18.88
	12H	14.18	14.70	15.30	15.81	17.34	15.75	16.27	16.88	17.38	18.92
4H	2H	12.68	13.31	13.79	14.40	15.91	13.33	13.95	14.44	15.04	16.55
	3H	14.19	14.71	15.30	15.83	17.35	15.09	15.61	16.21	16.73	18.25
	4H	14.69	15.17	15.81	16.28	17.82	15.77	16.25	16.89	17.36	18.90
	6H	14.98	15.39	16.11	16.53	18.06	16.26	16.67	17.39	17.80	19.33
	8H	15.04	15.42	16.17	16.54	18.09	16.40	16.78	17.53	17.91	19.45
	12H	15.03	15.38	16.18	16.51	18.07	16.45	16.80	17.60	17.94	19.49
8H	4H	14.85	15.24	15.98	16.36	17.91	15.84	16.23	16.97	17.35	18.90
	6H	15.23	15.55	16.38	16.71	18.26	16.41	16.72	17.56	17.89	19.44
	8H	15.33	15.61	16.49	16.75	18.32	16.60	16.87	17.75	18.02	19.58
	12H	15.36	15.60	16.52	16.74	18.35	16.69	16.93	17.85	18.07	19.68
12H	4H	14.83	15.18	15.97	16.31	17.87	15.80	16.15	16.95	17.29	18.84
	6H	15.25	15.52	16.40	16.67	18.24	16.40	16.68	17.55	17.82	19.39
	8H	15.35	15.60	16.51	16.74	18.34	16.59	16.83	17.75	17.97	19.58