

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: P998422

Luminaire Tested: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998422
REPORT IS A COMBINATION OF REPORTS P984164 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

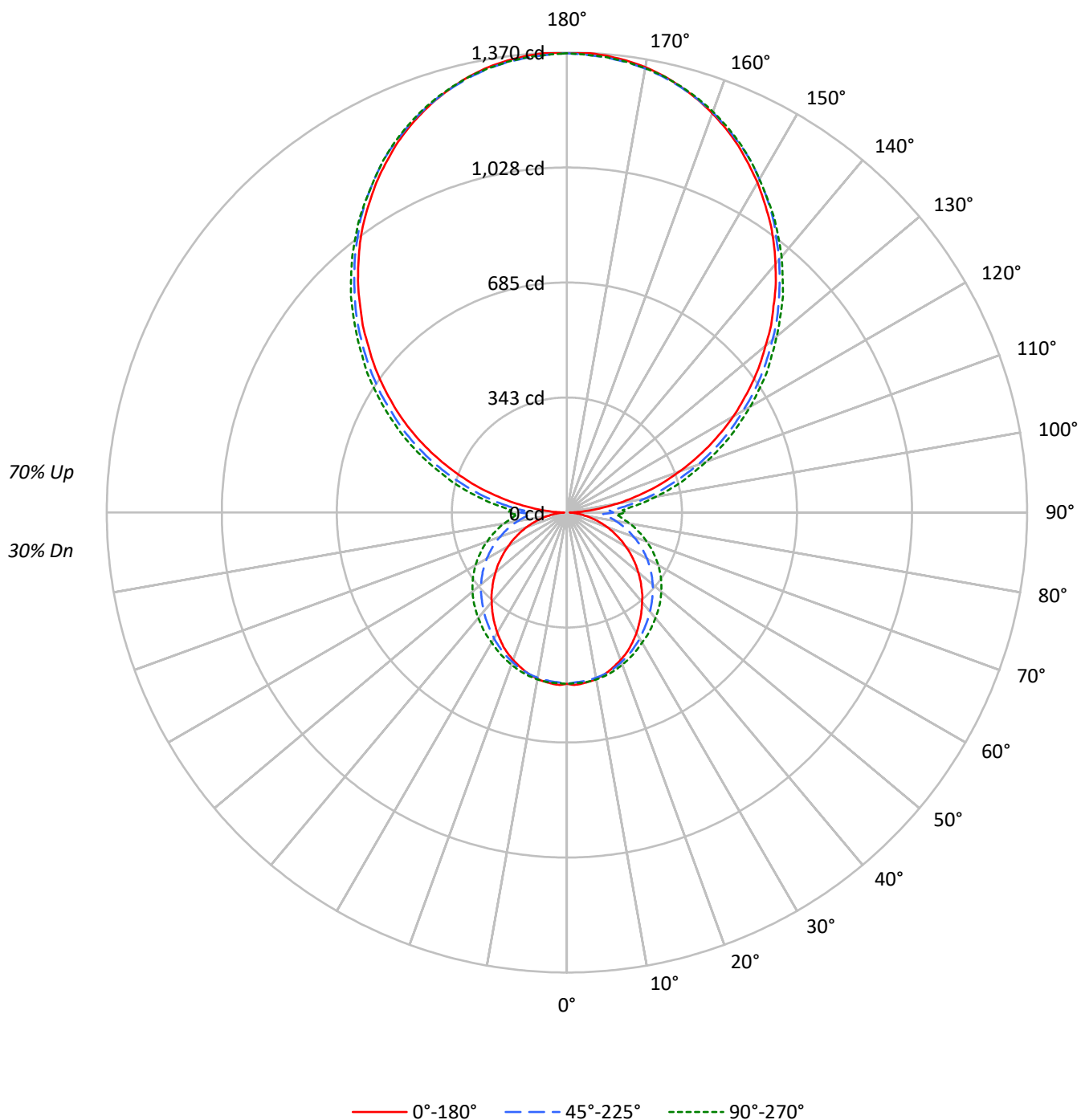
Lumens per Lamp: N/A
Luminaire Lumens: 5775.0 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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

TEST NUMBER: P998422

CATALOG NUMBER: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-D1

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	92	92	92	92	72	72	72	54	54	54	38	38	38
1	92	88	84	80	83	79	75	72	62	59	57	46	45	43	32	31	30
2	84	76	70	65	75	68	63	58	54	50	47	40	38	35	28	26	25
3	76	67	59	53	68	60	53	48	47	42	39	35	32	29	24	22	21
4	69	59	51	45	62	53	46	41	41	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	34	37	32	28	28	24	21	19	17	15
6	58	46	38	33	52	42	35	30	33	28	24	25	21	18	17	15	13
7	54	42	34	28	48	38	31	26	30	25	21	23	19	16	16	13	11
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10
9	46	34	27	22	41	31	24	20	25	20	16	19	15	13	13	11	9
10	43	31	24	19	39	28	22	18	23	18	15	17	14	11	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8078	8078	8078
5°	8113	7733	7689
10°	8059	7464	7356
15°	7946	7188	7014
20°	7802	6896	6690
25°	7660	6618	6395
30°	7461	6336	6104
35°	7260	6063	5891
40°	7049	5826	5678
45°	6849	5612	5493
50°	6631	5415	5310
55°	6403	5205	5125
60°	6127	4986	4929
65°	5837	4736	4704
70°	5509	4467	4462
75°	5091	4198	4232
80°	4431	3916	3996
85°	3757	3653	3791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 6849 cd/sqm

TEST NUMBER: P998422

CATALOG NUMBER: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	0.8
10°-20°	138.7	2.4
20°-30°	210.2	3.6
30°-40°	256.0	4.4
40°-50°	275.4	4.8
50°-60°	267.5	4.6
60°-70°	233.6	4.0
70°-80°	179.8	3.1
80°-90°	124.3	2.2
90°-100°	167.7	2.9
100°-110°	329.6	5.7
110°-120°	500.3	8.7
120°-130°	627.6	10.9
130°-140°	688.8	11.9
140°-150°	667.9	11.6
150°-160°	558.9	9.7
160°-170°	370.7	6.4
170°-180°	129.6	2.2
0°-30°	397.3	6.9
0°-40°	653.3	11.3
0°-60°	1196.2	20.7
0°-90°	1733.8	30.0
90°-120°	997.7	17.3
90°-150°	2982.0	51.6
90°-180°	4041.0	70.0
0°-180°	5775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	512	510	505	510	509	49
15°	488	490	490	496	496	137
25°	444	449	456	464	467	204
35°	382	395	409	425	430	239
45°	314	334	359	382	390	242
55°	240	267	305	332	342	215
65°	164	200	244	274	284	163
75°	91	132	180	212	221	96
85°	27	72	120	151	161	28
90°	9	65	138	165	175	9
95°	66	112	159	187	194	72
105°	252	277	318	346	354	266
115°	465	480	511	532	536	459
125°	673	684	704	720	726	602
135°	870	883	892	907	909	672
145°	1055	1063	1070	1076	1075	659
155°	1206	1210	1213	1219	1215	555
165°	1312	1311	1311	1319	1314	370
175°	1366	1362	1360	1368	1361	130
180°	1368	1368	1368	1368	1368	

TEST NUMBER: P998422

CATALOG NUMBER: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.3	510.3	510.3	510.3	510.3
2.5°	514.0	511.7	506.6	510.3	508.8
5°	511.7	509.5	505.1	509.5	508.8
7.5°	508.0	506.6	502.9	508.0	507.3
10°	503.6	502.1	499.9	505.8	505.1
12.5°	496.2	497.0	495.5	501.4	500.7
15°	488.1	489.6	489.6	496.2	495.5
17.5°	477.7	480.7	482.9	489.6	489.6
20°	467.4	471.1	474.0	482.2	482.2
22.5°	456.3	460.7	465.2	473.3	474.8
25°	443.7	448.9	455.5	464.4	466.6
27.5°	428.9	437.1	444.4	455.5	457.0
30°	414.1	423.7	433.4	445.2	447.4
32.5°	397.9	409.0	420.8	434.8	439.3
35°	382.3	394.9	409.0	425.2	430.4
37.5°	365.3	379.4	397.1	414.9	420.0
40°	348.3	364.6	384.5	403.8	410.4
42.5°	332.0	348.3	372.0	393.4	400.1
45°	313.6	333.5	359.4	382.3	389.7
47.5°	295.8	317.3	346.8	370.5	378.6
50°	277.3	300.2	333.5	358.7	366.8
52.5°	259.6	284.0	319.5	345.4	354.2
55°	240.3	267.0	305.4	332.0	341.7
57.5°	221.9	251.4	289.9	318.7	328.3
60°	201.9	233.7	275.8	303.9	314.3
62.5°	184.1	217.4	259.6	289.9	299.5
65°	164.2	200.4	244.0	274.4	284.0
67.5°	146.4	184.1	228.5	258.8	269.2
70°	127.2	165.7	211.5	243.3	252.2
72.5°	109.4	149.4	196.0	227.0	238.1
75°	91.0	132.4	179.7	211.5	221.1
77.5°	73.2	116.1	164.2	196.0	206.3
80°	55.5	100.6	148.6	179.7	190.1
82.5°	40.7	85.0	133.9	164.9	174.5
85°	26.6	72.5	119.8	150.9	161.2
87.5°	16.3	60.6	108.0	138.3	147.9
90°	8.6	65.3	138.0	165.3	175.3
92.5°	32.1	80.5	126.8	156.7	165.6
95°	65.9	112.3	158.9	187.0	193.6
97.5°	105.6	147.8	195.3	222.6	231.5
100°	151.8	188.3	233.3	260.6	267.5
102.5°	199.5	230.8	275.4	303.2	310.1
105°	251.9	276.7	317.5	345.7	353.8
107.5°	305.0	327.3	364.3	390.6	393.0
110°	355.0	376.7	413.0	436.6	441.3

TEST NUMBER: P998422

CATALOG NUMBER: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	410.5	429.2	462.0	482.3	488.1
115°	464.7	479.7	510.7	531.8	536.4
117.5°	518.2	533.3	558.6	577.4	581.3
120°	572.4	584.6	605.0	625.7	630.3
122.5°	622.0	634.4	655.9	672.4	676.7
125°	673.3	683.7	703.8	720.3	725.9
127.5°	724.1	736.0	751.3	765.2	768.5
130°	771.4	785.6	798.9	814.3	815.6
132.5°	824.5	835.2	847.5	858.7	861.3
135°	869.9	882.6	892.3	906.7	909.1
137.5°	920.6	931.0	937.0	950.0	950.6
140°	965.7	975.4	982.6	994.4	994.2
142.5°	1011.8	1021.5	1025.0	1035.0	1034.1
145°	1055.0	1063.1	1070.0	1075.6	1074.6
147.5°	1094.2	1104.6	1109.2	1112.3	1109.9
150°	1134.6	1141.6	1146.2	1149.6	1146.2
152.5°	1170.4	1177.3	1183.1	1187.7	1183.1
155°	1206.2	1209.7	1213.1	1218.9	1215.4
157.5°	1237.4	1239.7	1242.0	1250.1	1244.3
160°	1265.1	1267.4	1268.5	1275.5	1270.8
162.5°	1290.5	1290.5	1291.6	1299.7	1293.9
165°	1312.4	1311.2	1311.2	1319.3	1313.5
167.5°	1332.0	1328.6	1328.6	1336.6	1330.9
170°	1347.0	1343.6	1342.4	1350.5	1343.6
172.5°	1357.4	1353.9	1352.8	1360.9	1353.9
175°	1365.5	1362.0	1359.7	1367.8	1360.9
177.5°	1370.1	1366.6	1364.3	1371.3	1364.3
180°	1367.8	1367.8	1367.8	1367.8	1367.8

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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	10.28	11.01	11.38	12.12	13.65	13.36	14.09	14.46	15.19	16.72
	3H	11.73	12.39	12.85	13.51	15.05	15.94	16.60	17.05	17.71	19.26
	4H	12.20	12.83	13.33	13.95	15.50	17.19	17.81	18.31	18.93	20.48
	6H	12.48	13.06	13.61	14.18	15.74	18.48	19.06	19.61	20.17	21.73
	8H	12.54	13.09	13.67	14.22	15.78	19.13	19.69	20.27	20.82	22.37
	12H	12.55	13.08	13.69	14.20	15.78	19.85	20.38	20.99	21.51	23.08
4H	2H	11.32	11.95	12.45	13.06	14.61	13.67	14.30	14.80	15.42	16.97
	3H	13.02	13.55	14.15	14.69	16.25	16.45	16.99	17.59	18.13	19.69
	4H	13.63	14.12	14.77	15.25	16.83	17.87	18.36	19.00	19.49	21.07
	6H	14.04	14.47	15.19	15.62	17.19	19.33	19.75	20.47	20.90	22.47
	8H	14.15	14.54	15.29	15.69	17.28	20.08	20.48	21.22	21.62	23.21
	12H	14.18	14.55	15.35	15.70	17.29	20.90	21.27	22.06	22.42	24.01
8H	4H	14.41	14.81	15.56	15.95	17.54	18.00	18.40	19.14	19.54	21.13
	6H	15.04	15.37	16.21	16.56	18.14	19.62	19.96	20.79	21.14	22.73
	8H	15.26	15.55	16.43	16.72	18.32	20.51	20.80	21.68	21.97	23.57
	12H	15.39	15.65	16.56	16.81	18.45	21.50	21.76	22.67	22.92	24.56
12H	4H	14.61	14.97	15.77	16.12	17.72	17.97	18.33	19.13	19.48	21.08
	6H	15.37	15.67	16.54	16.83	18.43	19.65	19.94	20.82	21.10	22.71
	8H	15.67	15.93	16.85	17.09	18.73	20.57	20.83	21.74	21.99	23.63