

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: P998417

Luminaire Tested: SA2XXDIP-B485D1080UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998417
REPORT IS A COMBINATION OF REPORTS P984157 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB35-4F0-XX-W2A-F
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

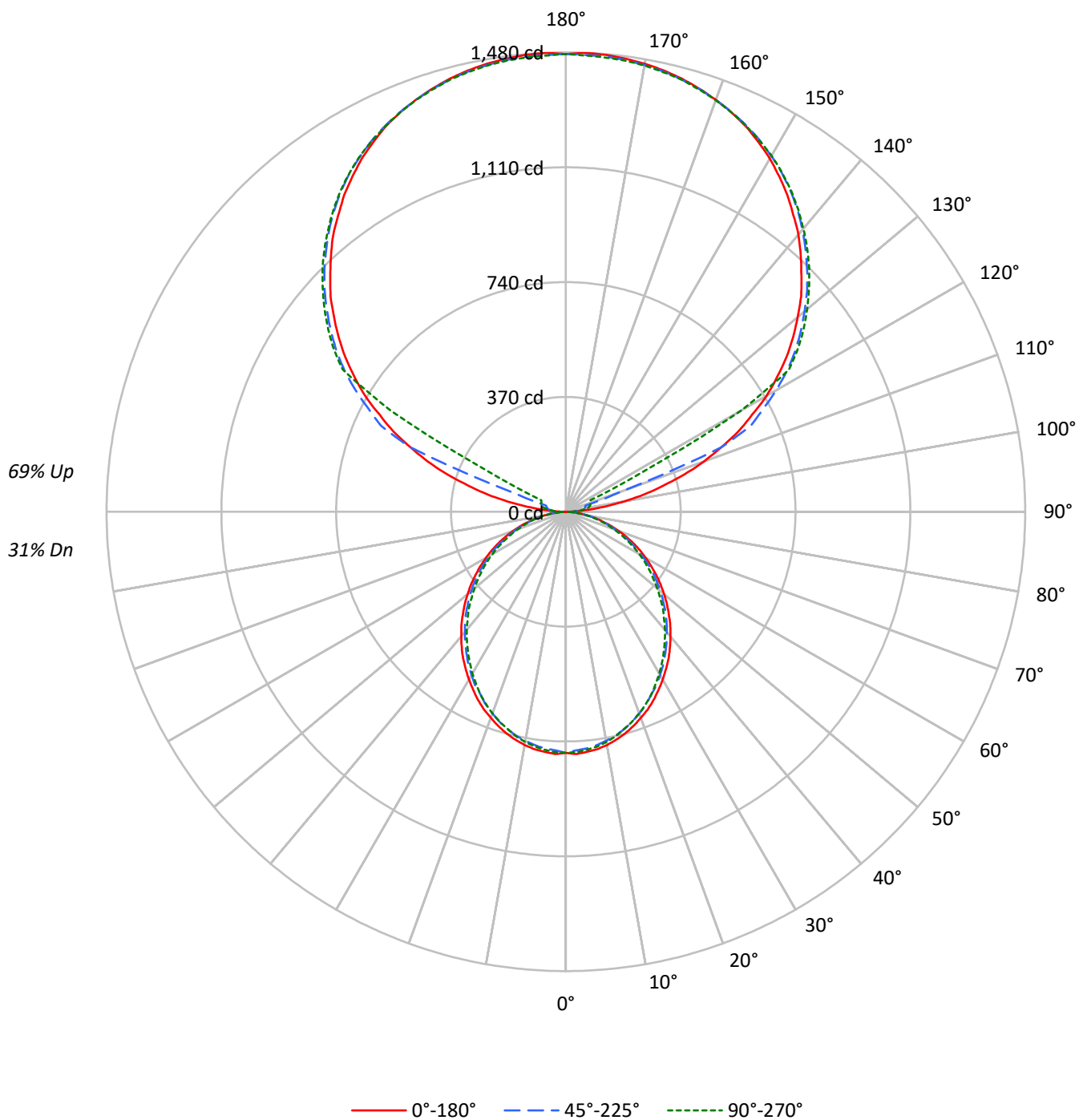
Lumens per Lamp: N/A
Luminaire Lumens: 6301.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	92	92	92	92	73	73	73	55	55	55	39	39	39
1	94	89	86	82	84	81	77	74	64	62	60	49	47	46	34	34	33
2	85	78	72	67	76	70	65	61	56	52	49	43	40	38	30	29	28
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24
4	71	61	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	19	18
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	17	16
7	55	43	36	30	50	39	33	28	32	27	23	25	21	18	18	16	14
8	51	39	32	27	46	36	29	25	29	24	20	22	19	16	16	14	12
9	48	36	28	24	43	32	26	22	26	22	18	21	17	15	15	13	11
10	44	33	26	21	40	30	24	19	24	19	16	19	16	13	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12295	12295	12295
5°	12315	11719	11636
10°	12213	11184	10963
15°	12035	10647	10255
20°	11794	10061	9585
25°	11552	9451	8916
30°	11249	8876	8212
35°	10964	8270	7524
40°	10611	7671	6870
45°	10258	7078	6231
50°	9876	6475	5568
55°	9473	5829	4939
60°	9018	5131	4286
65°	8521	4421	3599
70°	7891	3643	2907
75°	7021	2808	2243
80°	5964	1908	1444
85°	4322	887	614

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10258 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.1	1.2
10°-20°	205.7	3.3
20°-30°	302.3	4.8
30°-40°	351.0	5.6
40°-50°	350.6	5.6
50°-60°	305.7	4.9
60°-70°	226.0	3.6
70°-80°	127.9	2.0
80°-90°	36.3	0.6
90°-100°	48.6	0.8
100°-110°	181.2	2.9
110°-120°	480.7	7.6
120°-130°	797.2	12.7
130°-140°	846.8	13.4
140°-150°	787.0	12.5
150°-160°	632.7	10.0
160°-170°	407.7	6.5
170°-180°	140.3	2.2
0°-30°	581.0	9.2
0°-40°	932.1	14.8
0°-60°	1588.4	25.2
0°-90°	1978.6	31.4
90°-120°	710.5	11.3
90°-150°	3141.6	49.9
90°-180°	4322.0	68.6
0°-180°	6301.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	777	774	766	772	770	74
15°	739	735	725	728	724	208
25°	669	663	650	652	650	308
35°	577	570	558	553	550	360
45°	470	464	453	445	442	363
55°	356	351	342	333	329	318
65°	240	235	228	221	217	237
75°	126	124	120	116	117	134
85°	31	30	29	27	26	34
90°	1	13	21	27	29	6
95°	69	34	42	47	46	82
105°	324	356	65	77	81	347
115°	613	632	658	164	88	604
125°	867	881	902	909	912	774
135°	1073	1090	1100	1111	1108	829
145°	1245	1244	1262	1270	1264	779
155°	1371	1361	1374	1380	1372	632
165°	1444	1438	1441	1449	1441	408
175°	1478	1470	1472	1480	1469	141
180°	1474	1474	1474	1474	1474	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.7	776.7	776.7	776.7	776.7
2.5°	781.2	777.4	769.2	776.7	775.2
5°	776.7	773.7	765.5	771.5	770.0
7.5°	771.5	767.0	758.8	764.7	763.2
10°	763.2	758.0	749.0	755.0	752.8
12.5°	752.0	747.6	738.6	742.3	740.8
15°	739.3	734.9	725.2	728.1	724.4
17.5°	723.7	719.2	709.5	713.2	709.5
20°	706.5	702.0	691.5	693.8	690.8
22.5°	689.3	682.6	672.9	672.9	671.4
25°	669.1	663.2	650.5	652.0	650.5
27.5°	646.7	641.5	631.8	629.6	625.8
30°	624.3	618.4	607.2	604.9	601.9
32.5°	600.4	596.0	584.0	579.5	576.5
35°	577.3	569.8	557.9	553.4	549.7
37.5°	551.1	544.4	532.5	527.2	523.5
40°	524.3	518.3	506.3	499.6	496.6
42.5°	498.1	492.1	480.2	472.7	468.2
45°	469.7	464.5	453.3	445.1	442.1
47.5°	442.1	436.9	424.9	416.7	412.2
50°	413.0	409.3	398.8	388.3	384.6
52.5°	384.6	379.4	369.7	361.5	356.2
55°	355.5	351.0	342.0	333.1	329.3
57.5°	326.4	322.6	312.9	304.0	301.0
60°	297.2	294.2	283.8	275.6	273.3
62.5°	268.9	263.6	256.2	248.7	245.7
65°	239.7	235.2	227.8	221.1	217.3
67.5°	209.9	206.1	199.4	194.2	191.2
70°	182.2	179.2	172.5	167.3	164.3
72.5°	153.8	150.9	147.1	141.9	139.7
75°	125.5	124.0	120.2	115.8	117.2
77.5°	100.1	97.1	95.6	93.4	91.1
80°	74.7	73.9	72.4	70.2	68.7
82.5°	50.8	50.8	50.0	47.0	47.0
85°	30.6	29.9	29.1	26.9	26.1
87.5°	13.4	11.9	10.5	8.2	7.5
90°	1.1	12.8	21.3	26.7	28.8
92.5°	26.7	22.4	25.6	27.7	28.8
95°	69.3	34.1	41.6	46.9	45.9
97.5°	124.8	37.3	54.4	57.6	58.7
100°	188.8	42.7	60.8	69.3	71.5
102.5°	259.2	257.1	62.9	74.7	77.9
105°	324.3	356.3	65.1	76.8	81.1
107.5°	400.1	426.7	67.2	78.9	83.2
110°	472.6	495.0	186.7	80.0	84.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	540.9	560.1	542.0	82.1	85.3
115°	613.4	631.6	658.2	164.3	87.5
117.5°	676.4	697.7	715.9	563.3	283.8
120°	746.8	762.8	782.0	794.8	650.8
122.5°	806.5	823.6	844.9	851.4	852.4
125°	867.4	881.2	901.5	909.0	912.2
127.5°	922.8	937.8	953.8	964.4	965.5
130°	975.1	992.2	1003.9	1015.6	1014.6
132.5°	1028.4	1042.3	1054.1	1063.7	1062.6
135°	1073.3	1090.3	1099.9	1110.6	1108.5
137.5°	1120.2	1133.0	1143.7	1154.3	1151.1
140°	1166.1	1174.6	1186.3	1195.9	1190.6
142.5°	1204.5	1211.9	1225.8	1234.4	1229.0
145°	1245.0	1244.0	1262.1	1269.6	1264.2
147.5°	1280.2	1277.0	1295.2	1300.5	1296.2
150°	1314.4	1306.9	1324.0	1330.4	1325.0
152.5°	1343.2	1334.6	1350.6	1357.0	1349.6
155°	1370.9	1361.3	1374.1	1380.5	1372.0
157.5°	1393.3	1384.8	1394.4	1401.8	1393.3
160°	1412.5	1406.1	1412.5	1418.9	1411.4
162.5°	1429.6	1423.2	1428.5	1436.0	1426.4
165°	1444.5	1438.1	1441.3	1448.8	1441.3
167.5°	1456.3	1449.9	1453.1	1460.5	1450.9
170°	1465.9	1459.5	1461.6	1469.1	1459.5
172.5°	1472.3	1465.9	1468.0	1475.5	1465.9
175°	1477.6	1470.1	1472.3	1479.7	1469.1
177.5°	1479.7	1472.3	1473.3	1480.8	1471.2
180°	1474.4	1474.4	1474.4	1474.4	1474.4

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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	11.93	12.64	13.03	13.74	15.26	12.71	13.43	13.81	14.53	16.04
	3H	13.25	13.90	14.36	15.00	16.53	14.33	14.97	15.44	16.07	17.60
	4H	13.65	14.26	14.77	15.37	16.91	14.91	15.52	16.03	16.63	18.16
	6H	13.86	14.42	14.99	15.53	17.08	15.31	15.87	16.44	16.98	18.53
	8H	13.89	14.42	15.02	15.55	17.09	15.41	15.94	16.54	17.07	18.61
	12H	13.88	14.38	15.01	15.50	17.07	15.45	15.96	16.59	17.08	18.64
4H	2H	12.38	12.99	13.51	14.10	15.63	13.02	13.63	14.15	14.74	16.28
	3H	13.88	14.39	15.02	15.52	17.07	14.79	15.30	15.92	16.43	17.98
	4H	14.38	14.85	15.52	15.97	17.54	15.47	15.93	16.60	17.06	18.62
	6H	14.68	15.08	15.82	16.22	17.78	15.95	16.35	17.10	17.50	19.06
	8H	14.73	15.10	15.87	16.24	17.82	16.09	16.47	17.24	17.60	19.18
	12H	14.72	15.06	15.88	16.21	17.79	16.15	16.49	17.31	17.63	19.22
8H	4H	14.55	14.92	15.69	16.06	17.63	15.54	15.91	16.68	17.05	18.63
	6H	14.92	15.23	16.09	16.41	17.99	16.10	16.41	17.27	17.59	19.16
	8H	15.02	15.29	16.19	16.45	18.05	16.29	16.56	17.46	17.72	19.31
	12H	15.05	15.29	16.22	16.44	18.07	16.38	16.62	17.55	17.77	19.40
12H	4H	14.52	14.86	15.68	16.01	17.59	15.50	15.83	16.66	16.98	18.57
	6H	14.94	15.21	16.11	16.37	17.96	16.09	16.36	17.26	17.52	19.11
	8H	15.05	15.28	16.22	16.44	18.07	16.28	16.52	17.45	17.67	19.30