

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: P998401

Luminaire Tested: SA2XXDIP-B485D1080UB2750-4F0-XX-W2A-F_5000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998401
REPORT IS A COMBINATION OF REPORTS P984141 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB2750-4F0-XX-W2A-F_5000K
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

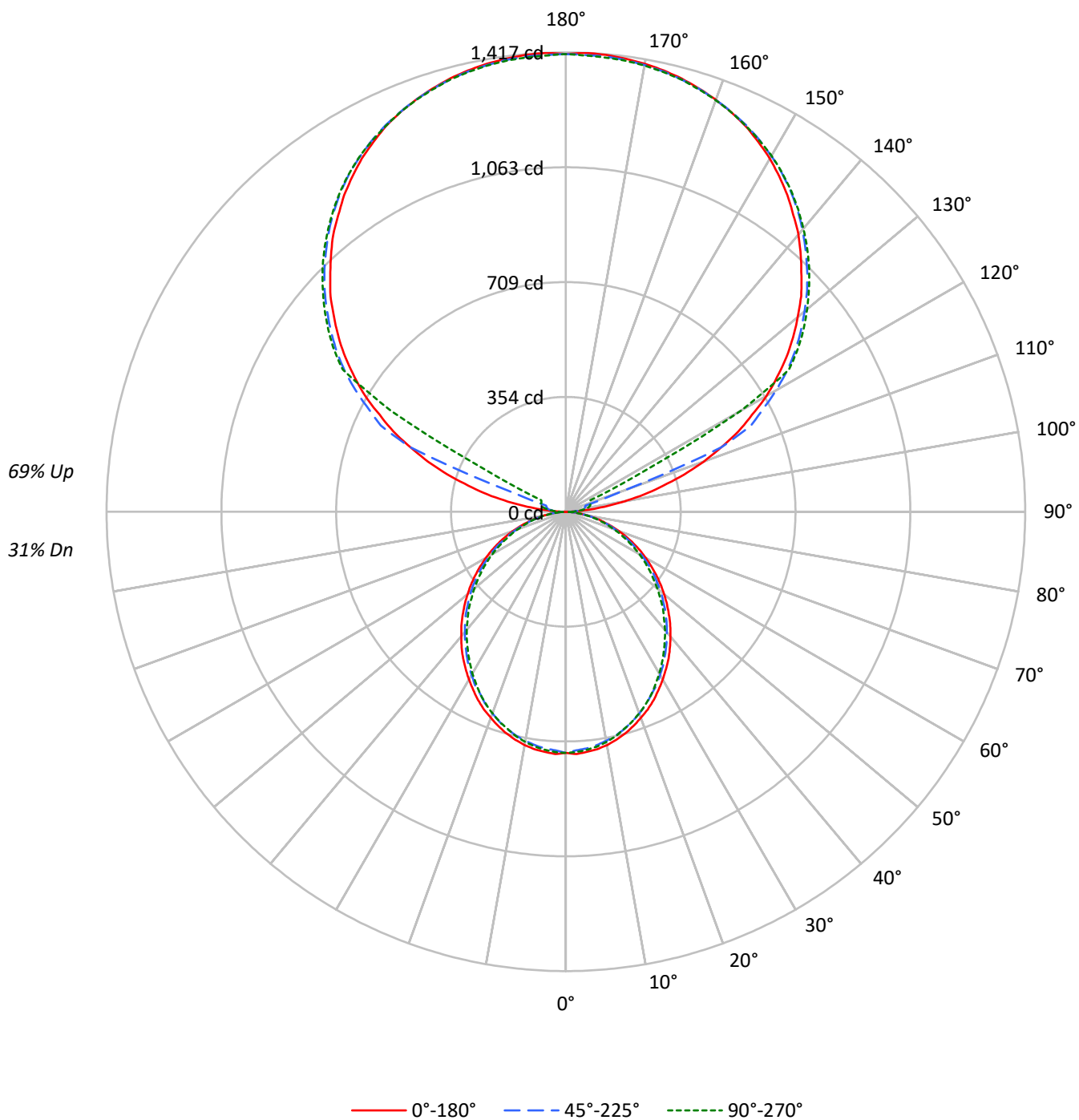
Lumens per Lamp: N/A
Luminaire Lumens: 6033.0 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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			0
RW	70	50	30	10	70	50	30	10	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	31		
1	94	89	86	82	84	81	77	74	64	62	60	49	47	46	34	34	33	26		
2	85	78	72	67	76	70	65	61	56	52	49	43	40	38	30	29	28	22		
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	19		
4	71	61	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20	16		
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	19	18	14		
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	17	16	12		
7	55	43	36	30	50	39	33	28	32	27	23	25	21	18	18	16	14	11		
8	51	39	32	27	46	36	29	25	29	24	20	22	19	16	16	14	12	10		
9	48	36	28	24	43	32	26	22	26	22	18	21	17	15	15	13	11	9		
10	44	33	26	21	40	30	24	19	24	19	16	19	16	13	14	12	10	8		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11772	11772	11772
5°	11791	11220	11141
10°	11695	10709	10497
15°	11524	10194	9819
20°	11291	9633	9177
25°	11061	9048	8536
30°	10771	8498	7863
35°	10497	7919	7203
40°	10160	7345	6579
45°	9824	6777	5966
50°	9455	6199	5332
55°	9070	5582	4729
60°	8636	4912	4104
65°	8159	4233	3447
70°	7557	3489	2783
75°	6718	2689	2149
80°	5708	1829	1383
85°	4139	851	588

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9824 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	1.2
10°-20°	196.9	3.3
20°-30°	289.4	4.8
30°-40°	336.1	5.6
40°-50°	335.7	5.6
50°-60°	292.7	4.9
60°-70°	216.4	3.6
70°-80°	122.4	2.0
80°-90°	34.8	0.6
90°-100°	46.6	0.8
100°-110°	173.5	2.9
110°-120°	460.2	7.6
120°-130°	763.3	12.7
130°-140°	810.8	13.4
140°-150°	753.6	12.5
150°-160°	605.8	10.0
160°-170°	390.4	6.5
170°-180°	134.4	2.2
0°-30°	556.3	9.2
0°-40°	892.4	14.8
0°-60°	1520.9	25.2
0°-90°	1894.5	31.4
90°-120°	680.3	11.3
90°-150°	3007.9	49.9
90°-180°	4139.0	68.6
0°-180°	6033.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	744	741	733	739	737	71
15°	708	704	694	697	694	199
25°	641	635	623	624	623	295
35°	553	546	534	530	526	345
45°	450	445	434	426	423	347
55°	340	336	328	319	315	304
65°	230	225	218	212	208	227
75°	120	119	115	111	112	128
85°	29	29	28	26	25	33
90°	1	12	20	26	28	6
95°	66	33	40	45	44	79
105°	310	341	62	74	78	332
115°	587	605	630	157	84	578
125°	830	844	863	870	873	741
135°	1028	1044	1053	1063	1061	794
145°	1192	1191	1208	1216	1210	746
155°	1313	1303	1316	1322	1314	605
165°	1383	1377	1380	1387	1380	391
175°	1415	1408	1410	1417	1407	135
180°	1412	1412	1412	1412	1412	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.7	743.7	743.7	743.7	743.7
2.5°	748.0	744.4	736.5	743.7	742.2
5°	743.7	740.8	732.9	738.7	737.2
7.5°	738.7	734.4	726.5	732.2	730.8
10°	730.8	725.8	717.2	722.9	720.8
12.5°	720.1	715.8	707.2	710.8	709.3
15°	707.9	703.6	694.3	697.2	693.6
17.5°	692.9	688.6	679.3	682.9	679.3
20°	676.4	672.2	662.1	664.3	661.4
22.5°	660.0	653.6	644.3	644.3	642.8
25°	640.7	635.0	622.8	624.2	622.8
27.5°	619.2	614.2	604.9	602.8	599.2
30°	597.8	592.1	581.3	579.2	576.3
32.5°	574.9	570.6	559.2	554.9	552.0
35°	552.7	545.6	534.2	529.9	526.3
37.5°	527.7	521.3	509.8	504.8	501.3
40°	502.0	496.3	484.8	478.4	475.5
42.5°	476.9	471.2	459.8	452.6	448.3
45°	449.8	444.8	434.0	426.2	423.3
47.5°	423.3	418.3	406.9	399.0	394.7
50°	395.4	391.9	381.8	371.8	368.3
52.5°	368.3	363.3	354.0	346.1	341.1
55°	340.4	336.1	327.5	318.9	315.3
57.5°	312.5	308.9	299.6	291.0	288.2
60°	284.6	281.7	271.7	263.9	261.7
62.5°	257.4	252.4	245.3	238.1	235.3
65°	229.5	225.2	218.1	211.7	208.1
67.5°	200.9	197.4	190.9	185.9	183.1
70°	174.5	171.6	165.2	160.2	157.3
72.5°	147.3	144.4	140.9	135.9	133.7
75°	120.1	118.7	115.1	110.8	112.3
77.5°	95.8	93.0	91.5	89.4	87.2
80°	71.5	70.8	69.4	67.2	65.8
82.5°	48.6	48.6	47.9	45.0	45.0
85°	29.3	28.6	27.9	25.7	25.0
87.5°	12.9	11.4	10.0	7.9	7.2
90°	1.0	12.3	20.4	25.5	27.6
92.5°	25.5	21.5	24.5	26.6	27.6
95°	66.4	32.7	39.8	44.9	43.9
97.5°	119.5	35.8	52.1	55.2	56.2
100°	180.8	40.9	58.2	66.4	68.4
102.5°	248.2	246.2	60.3	71.5	74.6
105°	310.5	341.2	62.3	73.5	77.6
107.5°	383.1	408.6	64.4	75.6	79.7
110°	452.5	474.0	178.8	76.6	80.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	517.9	536.3	518.9	78.7	81.7
115°	587.3	604.7	630.2	157.3	83.8
117.5°	647.6	668.0	685.4	539.3	271.7
120°	715.0	730.3	748.7	761.0	623.1
122.5°	772.2	788.6	809.0	815.1	816.2
125°	830.5	843.7	863.1	870.3	873.4
127.5°	883.6	897.9	913.2	923.4	924.4
130°	933.6	950.0	961.2	972.4	971.4
132.5°	984.7	998.0	1009.2	1018.4	1017.4
135°	1027.6	1043.9	1053.1	1063.3	1061.3
137.5°	1072.5	1084.8	1095.0	1105.2	1102.2
140°	1116.5	1124.6	1135.9	1145.1	1140.0
142.5°	1153.2	1160.4	1173.7	1181.8	1176.7
145°	1192.1	1191.0	1208.4	1215.5	1210.4
147.5°	1225.8	1222.7	1240.1	1245.2	1241.1
150°	1258.4	1251.3	1267.6	1273.8	1268.7
152.5°	1286.0	1277.9	1293.2	1299.3	1292.2
155°	1312.6	1303.4	1315.7	1321.8	1313.6
157.5°	1334.0	1325.9	1335.1	1342.2	1334.0
160°	1352.4	1346.3	1352.4	1358.6	1351.4
162.5°	1368.8	1362.6	1367.7	1374.9	1365.7
165°	1383.1	1376.9	1380.0	1387.2	1380.0
167.5°	1394.3	1388.2	1391.2	1398.4	1389.2
170°	1403.5	1397.4	1399.4	1406.6	1397.4
172.5°	1409.6	1403.5	1405.5	1412.7	1403.5
175°	1414.7	1407.6	1409.6	1416.8	1406.6
177.5°	1416.8	1409.6	1410.6	1417.8	1408.6
180°	1411.7	1411.7	1411.7	1411.7	1411.7

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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	11.78	12.49	12.88	13.59	15.11	12.56	13.27	13.66	14.37	15.89
	3H	13.10	13.74	14.21	14.85	16.38	14.17	14.81	15.28	15.92	17.45
	4H	13.50	14.11	14.62	15.22	16.75	14.76	15.37	15.88	16.48	18.01
	6H	13.71	14.27	14.84	15.38	16.93	15.15	15.71	16.28	16.83	18.37
	8H	13.74	14.27	14.87	15.40	16.94	15.26	15.79	16.39	16.92	18.46
	12H	13.73	14.23	14.86	15.35	16.92	15.30	15.80	16.44	16.92	18.49
4H	2H	12.23	12.84	13.36	13.94	15.48	12.87	13.48	14.00	14.59	16.12
	3H	13.73	14.24	14.87	15.37	16.92	14.64	15.15	15.77	16.28	17.83
	4H	14.23	14.70	15.37	15.82	17.39	15.31	15.78	16.45	16.90	18.47
	6H	14.53	14.93	15.67	16.07	17.63	15.80	16.20	16.94	17.35	18.91
	8H	14.58	14.95	15.72	16.09	17.67	15.94	16.31	17.08	17.45	19.03
	12H	14.57	14.91	15.73	16.06	17.64	15.99	16.33	17.15	17.48	19.07
8H	4H	14.40	14.77	15.54	15.91	17.48	15.39	15.76	16.53	16.90	18.48
	6H	14.77	15.08	15.94	16.26	17.84	15.95	16.26	17.11	17.44	19.01
	8H	14.87	15.14	16.04	16.30	17.90	16.14	16.41	17.31	17.57	19.16
	12H	14.90	15.14	16.07	16.29	17.92	16.23	16.47	17.40	17.62	19.25
12H	4H	14.37	14.71	15.53	15.86	17.44	15.34	15.68	16.50	16.83	18.41
	6H	14.79	15.06	15.96	16.22	17.81	15.94	16.21	17.11	17.37	18.96
	8H	14.90	15.13	16.07	16.29	17.92	16.13	16.37	17.30	17.52	19.15