

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: P905738

Luminaire Tested: DFN2DIP-PN3F0-050D040US835-RLLFLL

Issue Date: 11/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P905738
REPORT IS A COMBINATION OF REPORTS P899530 AND P896399
Test Lab: INNOVATION CENTER
Issue Date: 11/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DIP-PN3F0-050D040US835-RLLFLL
Description: 3 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens, Indirect Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

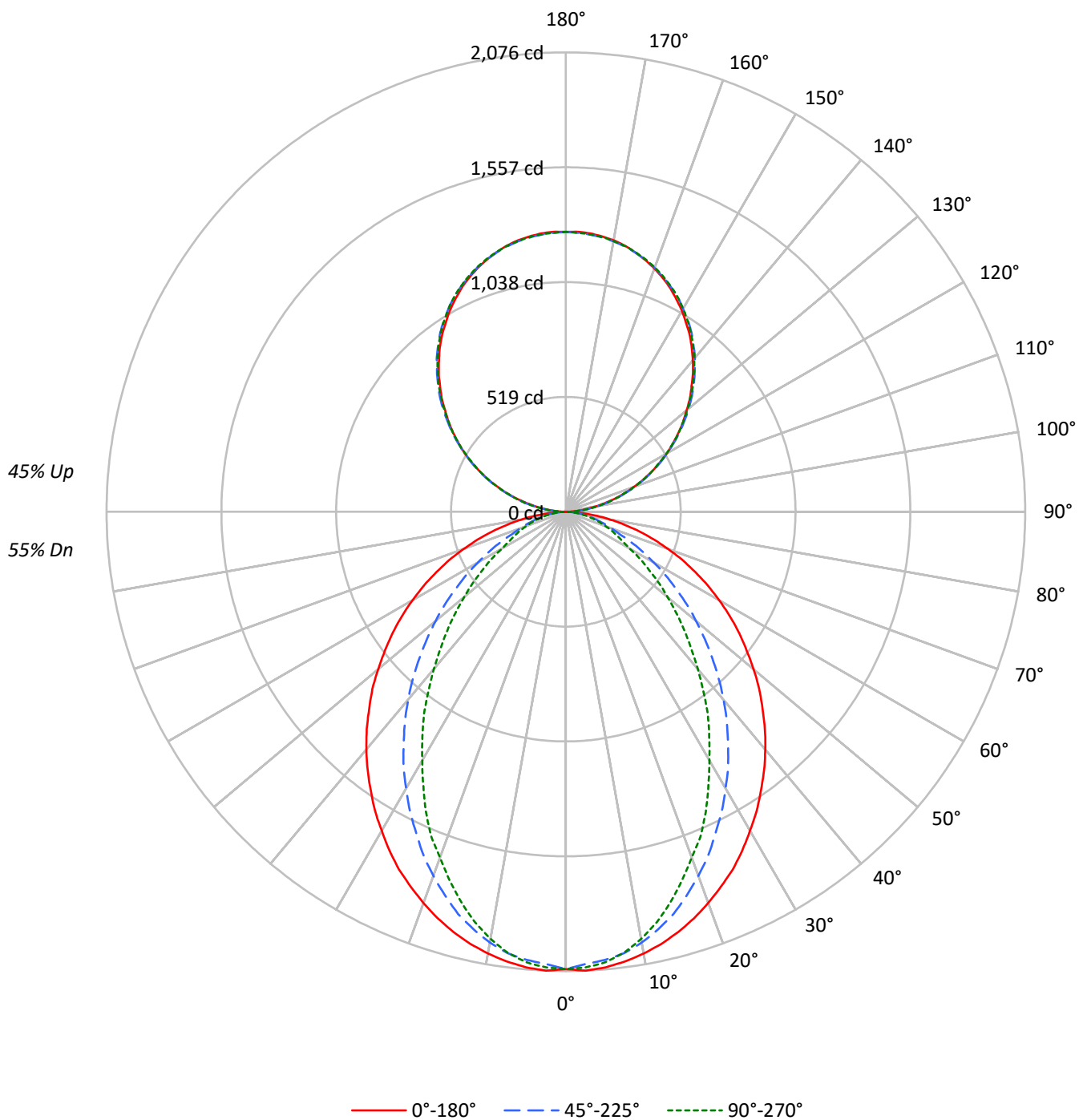
Lumens per Lamp: N/A
Luminaire Lumens: 7790.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 2.96' x L: 3.11' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 75
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9613
Total Harmonic Distortion (THDi): 0.083
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P905738

CATALOG NUMBER: DFN2DIP-PN3F0-050D040US835-RLLFLL

Luminous Intensity Polar Plot



TEST NUMBER: P905738

CATALOG NUMBER: DFN2DIP-PN3F0-050D040US835-RLLFLL

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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60
1	99	95	91	88	92	89	85	82	76	74	72	65	63	62	54	53	52
2	91	84	78	73	84	78	73	69	67	63	60	57	55	52	48	46	45
3	83	74	67	61	77	69	63	58	60	55	51	51	48	45	43	41	39
4	76	66	58	52	71	62	55	50	54	48	44	46	42	39	39	36	34
5	70	59	51	45	65	55	48	43	48	43	38	42	37	34	35	32	30
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26
7	60	48	40	35	56	45	38	33	40	34	30	35	30	27	30	26	24
8	56	44	36	31	52	41	34	30	36	31	27	32	27	24	27	24	21
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	25	22	19
10	49	37	30	25	46	35	28	24	31	26	22	27	23	20	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2416	2416	2416
5°	2418	2376	2392
10°	2393	2327	2313
15°	2358	2249	2191
20°	2313	2141	2043
25°	2267	2021	1900
30°	2206	1898	1718
35°	2146	1765	1559
40°	2084	1628	1376
45°	2013	1477	1211
50°	1939	1324	1050
55°	1862	1161	895
60°	1773	991	735
65°	1670	818	661
70°	1545	657	596
75°	1388	576	540
80°	1160	478	465
85°	789	311	343

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2013 cd/sqm

TEST NUMBER: P905738

CATALOG NUMBER: DFN2DIP-PN3F0-050D040US835-RLFL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.7	2.5
10°-20°	531.7	6.8
20°-30°	746.5	9.6
30°-40°	813.7	10.4
40°-50°	747.9	9.6
50°-60°	587.3	7.5
60°-70°	382.3	4.9
70°-80°	196.8	2.5
80°-90°	53.8	0.7
90°-100°	78.3	1.0
100°-110°	248.7	3.2
110°-120°	425.6	5.5
120°-130°	559.8	7.2
130°-140°	628.3	8.1
140°-150°	616.2	7.9
150°-160°	516.9	6.6
160°-170°	342.8	4.4
170°-180°	119.8	1.5
0°-30°	1471.8	18.9
0°-40°	2285.5	29.3
0°-60°	3620.7	46.5
0°-90°	4253.6	54.6
90°-120°	752.7	9.7
90°-150°	2556.9	32.8
90°-180°	3536.0	45.4
0°-180°	7790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2066	2057	2033	2050	2044	196
15°	1966	1945	1881	1846	1827	554
25°	1784	1724	1601	1524	1496	821
35°	1537	1442	1277	1160	1118	962
45°	1257	1131	935	802	757	971
55°	956	810	608	496	460	854
65°	645	494	325	262	256	640
75°	344	213	150	136	135	364
85°	80	41	36	36	36	92
90°	1	14	37	35	36	8
95°	56	66	68	68	66	62
105°	230	233	235	237	237	242
115°	427	433	431	430	427	422
125°	621	631	628	624	623	555
135°	804	815	818	816	814	621
145°	976	983	989	990	986	610
155°	1116	1119	1122	1127	1124	513
165°	1214	1212	1212	1220	1215	342
175°	1263	1260	1257	1265	1259	120
180°	1265	1265	1265	1265	1265	

TEST NUMBER: P905738

CATALOG NUMBER: DFN2DIP-PN3F0-050D040US835-RLFL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2066.5	2066.5	2066.5	2066.5	2066.5
2.5°	2075.8	2066.5	2045.9	2064.7	2060.9
5°	2066.5	2057.2	2032.8	2049.6	2044.1
7.5°	2049.6	2038.5	2012.3	2019.7	2010.3
10°	2027.2	2014.1	1976.8	1971.1	1959.9
12.5°	1999.2	1982.4	1931.8	1920.7	1900.0
15°	1965.5	1944.9	1881.4	1845.9	1827.2
17.5°	1926.2	1896.3	1817.7	1776.6	1746.6
20°	1881.4	1843.9	1750.4	1703.8	1662.5
22.5°	1832.8	1789.7	1681.2	1617.7	1589.7
25°	1784.1	1724.2	1600.8	1524.2	1496.0
27.5°	1726.2	1662.5	1526.0	1438.1	1395.1
30°	1664.5	1593.3	1443.7	1348.4	1297.8
32.5°	1604.6	1518.5	1365.3	1253.0	1206.2
35°	1537.3	1441.9	1277.4	1159.5	1118.3
37.5°	1471.8	1368.9	1195.1	1065.9	1019.3
40°	1402.6	1290.5	1108.9	976.2	927.6
42.5°	1331.6	1211.9	1023.0	884.5	837.9
45°	1256.8	1131.4	935.1	802.2	757.3
47.5°	1185.7	1053.0	851.0	718.1	677.0
50°	1107.2	974.4	768.7	639.5	600.4
52.5°	1030.4	890.1	690.1	566.7	531.2
55°	955.6	809.7	607.7	495.6	460.1
57.5°	879.0	729.4	534.9	430.2	400.2
60°	800.4	650.8	458.1	362.9	332.9
62.5°	723.8	574.2	392.7	303.0	288.1
65°	645.2	493.7	325.4	261.9	256.2
67.5°	570.4	418.9	261.9	230.0	224.4
70°	491.9	346.0	216.9	198.2	190.7
72.5°	417.1	278.6	181.4	166.5	162.7
75°	344.1	213.1	149.6	136.5	134.7
77.5°	271.2	151.4	117.9	110.3	106.5
80°	203.8	108.5	89.7	82.3	82.3
82.5°	142.1	73.0	61.7	57.9	57.9
85°	80.4	41.1	35.5	35.5	35.5
87.5°	30.0	14.9	14.9	13.1	13.1
90°	1.1	13.7	37.4	35.1	36.2
92.5°	23.6	32.0	33.2	34.3	34.3
95°	55.7	66.4	68.3	68.3	66.4
97.5°	92.7	102.6	106.8	106.8	106.8
100°	135.4	144.2	147.2	147.2	146.1
102.5°	180.4	186.9	191.1	192.2	191.1
105°	229.6	232.6	234.9	236.8	236.8
107.5°	278.4	283.0	283.0	283.7	278.4
110°	325.7	331.8	331.8	331.8	328.8

TEST NUMBER: P905738

CATALOG NUMBER: DFN2DIP-PN3F0-050D040US835-RLLFLL

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	376.8	383.3	382.1	379.1	376.8
115°	427.1	433.3	431.3	430.2	427.1
117.5°	477.1	485.5	480.2	477.1	474.1
120°	527.5	535.8	527.5	527.5	524.0
122.5°	573.2	583.9	578.6	575.5	573.2
125°	621.3	630.8	627.8	624.3	623.2
127.5°	668.2	680.0	675.8	671.2	668.2
130°	712.0	725.8	723.9	721.6	717.4
132.5°	761.2	771.9	772.7	767.3	764.3
135°	803.6	815.4	817.7	816.5	813.5
137.5°	850.9	860.4	862.3	861.5	857.0
140°	892.4	902.0	907.3	907.3	903.1
142.5°	935.2	944.7	947.7	948.9	944.7
145°	975.6	983.2	989.3	990.5	986.3
147.5°	1011.8	1021.3	1025.9	1027.8	1023.6
150°	1049.2	1055.7	1059.9	1063.3	1059.9
152.5°	1082.4	1088.8	1094.2	1098.4	1094.2
155°	1115.5	1118.6	1122.0	1127.4	1123.9
157.5°	1144.2	1146.4	1148.3	1156.0	1150.6
160°	1169.7	1172.0	1173.1	1179.6	1175.0
162.5°	1193.3	1193.3	1194.5	1201.7	1196.4
165°	1213.6	1212.4	1212.4	1220.0	1214.7
167.5°	1231.9	1228.4	1228.4	1236.1	1230.7
170°	1245.6	1242.5	1241.4	1249.0	1242.5
172.5°	1255.1	1252.1	1250.9	1258.6	1252.1
175°	1262.8	1259.7	1257.4	1265.0	1258.6
177.5°	1267.0	1263.9	1261.6	1268.1	1261.6
180°	1265.0	1265.0	1265.0	1265.0	1265.0

TEST NUMBER: P905738

CATALOG NUMBER: DFN2DIP-PN3F0-050D040US835-RLLFLL

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	10.59	11.46	11.51	12.40	13.60	6.56	7.43	7.48	8.36	9.57
	3H	12.27	13.04	13.20	13.99	15.22	7.74	8.52	8.68	9.47	10.70
	4H	12.87	13.61	13.82	14.56	15.80	8.19	8.93	9.14	9.88	11.12
	6H	13.29	13.97	14.25	14.92	16.18	8.51	9.18	9.47	10.14	11.39
	8H	13.42	14.06	14.38	15.03	16.28	8.60	9.24	9.56	10.21	11.46
	12H	13.48	14.09	14.45	15.05	16.33	8.64	9.25	9.61	10.22	11.49
4H	2H	10.61	11.35	11.57	12.30	13.54	7.15	7.89	8.11	8.84	10.08
	3H	12.44	13.05	13.40	14.03	15.28	8.50	9.11	9.47	10.09	11.35
	4H	13.13	13.68	14.10	14.66	15.94	9.05	9.60	10.02	10.58	11.86
	6H	13.64	14.12	14.63	15.12	16.39	9.46	9.94	10.45	10.94	12.21
	8H	13.81	14.26	14.80	15.25	16.54	9.59	10.03	10.57	11.02	12.32
	12H	13.90	14.31	14.91	15.32	16.61	9.65	10.05	10.66	11.06	12.36
8H	4H	13.10	13.54	14.08	14.54	15.83	9.33	9.77	10.31	10.76	12.05
	6H	13.66	14.03	14.67	15.06	16.35	9.84	10.21	10.85	11.24	12.53
	8H	13.87	14.20	14.89	15.22	16.52	10.02	10.35	11.04	11.37	12.68
	12H	14.01	14.29	15.03	15.31	16.66	10.14	10.42	11.16	11.44	12.79
12H	4H	13.05	13.45	14.06	14.46	15.76	9.33	9.73	10.34	10.74	12.04
	6H	13.63	13.96	14.65	14.98	16.29	9.88	10.21	10.90	11.23	12.54
	8H	13.85	14.14	14.87	15.15	16.50	10.09	10.38	11.11	11.39	12.74