

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: P920876

Luminaire Tested: DFN2DIP-TR3F0-080D070US935-RLLFLL

Issue Date: 11/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P920876
REPORT IS A COMBINATION OF REPORTS P900338 AND P897195
Test Lab: INNOVATION CENTER
Issue Date: 11/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DIP-TR3F0-080D070US935-RLLFLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens, Indirect Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

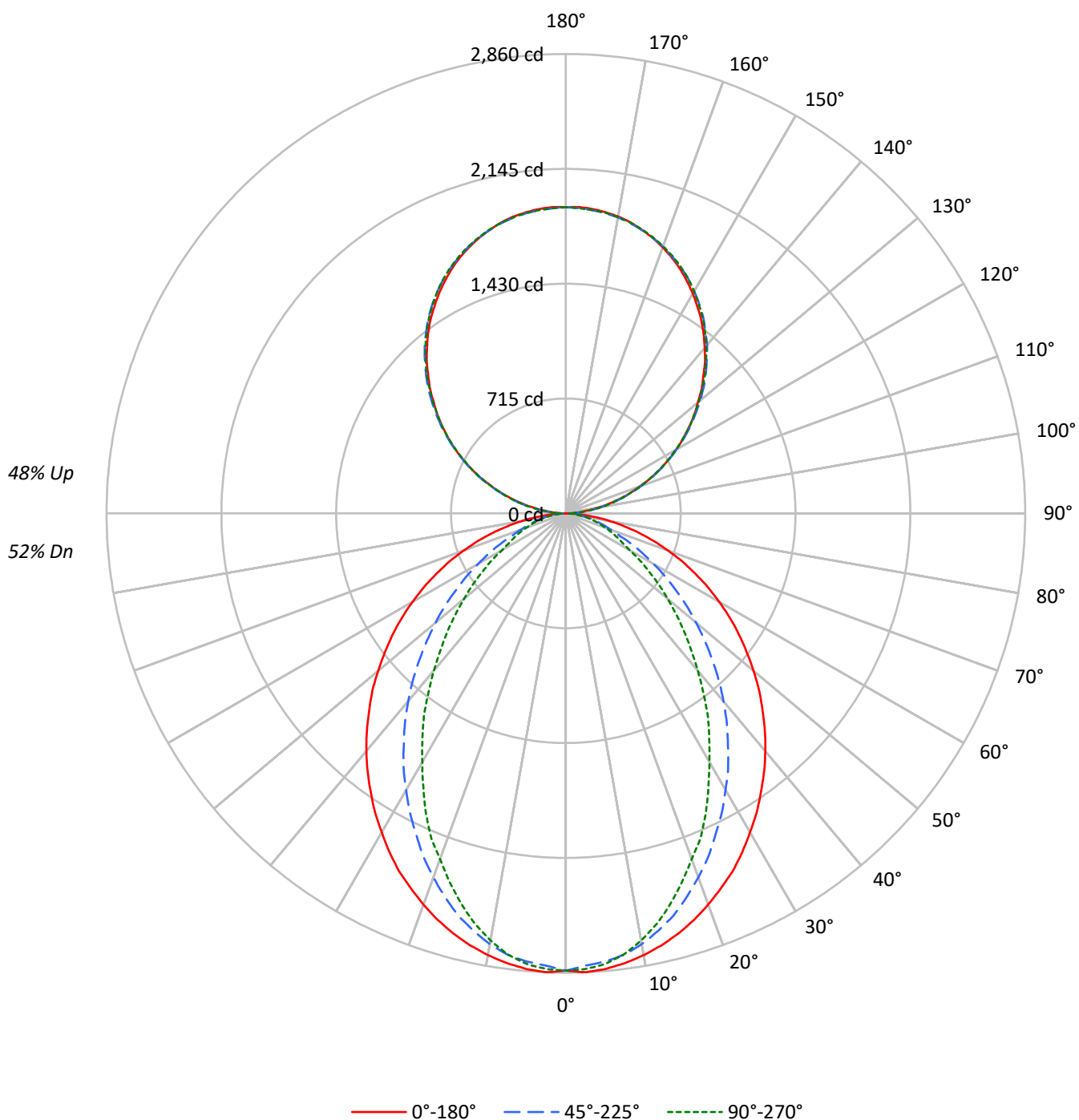
Lumens per Lamp: N/A
Luminaire Lumens: 11188.7 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 2.74' x L: 3.16' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 134.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P920876

CATALOG NUMBER: DFN2DIP-TR3F0-080D070US935-RLLFLL

Luminous Intensity Polar Plot



TEST NUMBER: P920876

CATALOG NUMBER: DFN2DIP-TR3F0-080D070US935-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	85	85	85	71	71	71	58	58	58
1	99	95	91	88	91	88	85	82	75	73	71	63	62	60	52	51	50
2	90	83	77	72	83	77	72	68	66	63	59	56	53	51	47	45	43
3	83	74	67	61	76	69	62	57	59	54	50	50	47	44	42	39	37
4	76	66	58	52	70	61	54	49	53	48	43	45	41	38	38	35	33
5	70	59	51	45	65	55	48	43	47	42	38	41	36	33	34	31	29
6	65	53	45	39	60	49	42	37	43	37	33	37	33	29	31	28	25
7	60	48	40	35	55	45	38	33	39	34	30	34	29	26	29	25	23
8	56	44	36	31	52	41	34	29	36	30	26	31	27	23	26	23	21
9	52	40	33	28	48	38	31	26	33	28	24	29	24	21	24	21	19
10	49	37	30	25	45	35	28	24	30	25	22	26	22	19	23	20	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3547	3547	3547
5°	3551	3488	3511
10°	3514	3417	3395
15°	3464	3301	3216
20°	3398	3143	2997
25°	3330	2965	2786
30°	3240	2784	2519
35°	3152	2589	2285
40°	3062	2388	2017
45°	2957	2166	1774
50°	2849	1941	1536
55°	2736	1702	1309
60°	2605	1452	1075
65°	2454	1198	965
70°	2271	961	870
75°	2041	841	786
80°	1708	696	674
85°	1162	451	493

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2957 cd/sqm

TEST NUMBER: P920876

CATALOG NUMBER: DFN2DIP-TR3F0-080D070US935-RLLFLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.8	2.4
10°-20°	732.4	6.5
20°-30°	1028.3	9.2
30°-40°	1120.9	10.0
40°-50°	1030.3	9.2
50°-60°	809.1	7.2
60°-70°	526.6	4.7
70°-80°	271.1	2.4
80°-90°	74.6	0.7
90°-100°	117.9	1.1
100°-110°	374.8	3.3
110°-120°	641.3	5.7
120°-130°	843.5	7.5
130°-140°	946.7	8.5
140°-150°	928.4	8.3
150°-160°	778.8	7.0
160°-170°	516.5	4.6
170°-180°	180.5	1.6
0°-30°	2027.6	18.1
0°-40°	3148.5	28.1
0°-60°	4987.8	44.6
0°-90°	5860.2	52.4
90°-120°	1134.1	10.1
90°-150°	3852.7	34.4
90°-180°	5328.0	47.6
0°-180°	11188.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2847	2847	2847	2847	2847	
5°	2847	2834	2800	2824	2816	270
15°	2708	2679	2592	2543	2517	763
25°	2458	2375	2205	2100	2061	1130
35°	2118	1986	1760	1597	1540	1326
45°	1731	1559	1288	1105	1043	1337
55°	1316	1116	837	683	634	1176
65°	889	680	448	361	353	881
75°	474	294	206	188	186	501
85°	111	57	49	49	49	127
90°	2	21	56	53	55	11
95°	84	100	103	103	100	93
105°	346	350	354	357	357	365
115°	644	653	650	648	644	637
125°	936	950	946	941	939	837
135°	1211	1229	1232	1230	1226	936
145°	1470	1481	1491	1492	1486	918
155°	1681	1685	1691	1699	1694	774
165°	1828	1827	1827	1838	1830	516
175°	1903	1898	1895	1906	1896	181
180°	1906	1906	1906	1906	1906	

TEST NUMBER: P920876

CATALOG NUMBER: DFN2DIP-TR3F0-080D070US935-RLLFLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2846.8	2846.8	2846.8	2846.8	2846.8
2.5°	2859.6	2846.8	2818.4	2844.3	2839.1
5°	2846.8	2834.0	2800.3	2823.6	2815.9
7.5°	2823.6	2808.2	2772.2	2782.3	2769.4
10°	2792.6	2774.7	2723.3	2715.3	2700.0
12.5°	2754.2	2730.9	2661.2	2645.8	2617.4
15°	2707.7	2679.3	2591.8	2542.9	2517.1
17.5°	2653.5	2612.3	2504.0	2447.5	2406.1
20°	2591.8	2540.1	2411.4	2347.2	2290.3
22.5°	2524.8	2465.5	2316.0	2228.5	2189.9
25°	2457.8	2375.3	2205.3	2099.8	2061.0
27.5°	2378.0	2290.3	2102.2	1981.2	1921.8
30°	2293.0	2194.9	1988.8	1857.6	1787.9
32.5°	2210.4	2091.9	1880.8	1726.1	1661.6
35°	2117.8	1986.3	1759.7	1597.4	1540.5
37.5°	2027.6	1885.8	1646.3	1468.3	1404.1
40°	1932.3	1777.8	1527.7	1344.8	1277.8
42.5°	1834.4	1669.6	1409.3	1218.6	1154.3
45°	1731.3	1558.6	1288.2	1105.1	1043.4
47.5°	1633.5	1450.6	1172.3	989.2	932.6
50°	1525.2	1342.4	1058.9	881.0	827.1
52.5°	1419.4	1226.1	950.6	780.7	731.8
55°	1316.4	1115.5	837.2	682.8	633.9
57.5°	1210.9	1004.8	736.9	592.6	551.3
60°	1102.6	896.6	631.1	499.9	458.7
62.5°	997.1	791.0	541.0	417.4	396.9
65°	888.9	680.0	448.2	360.8	352.8
67.5°	785.8	577.0	360.8	316.8	309.2
70°	677.6	476.7	298.8	273.0	262.7
72.5°	574.5	383.7	249.9	229.4	224.1
75°	474.0	293.6	206.1	188.0	185.6
77.5°	373.7	208.5	162.4	152.0	146.8
80°	280.7	149.6	123.6	113.4	113.4
82.5°	195.7	100.6	85.0	79.8	79.8
85°	110.7	56.6	48.9	48.9	48.9
87.5°	41.2	20.5	20.5	18.1	18.1
90°	1.7	20.7	56.3	52.9	54.6
92.5°	35.6	48.3	50.0	51.7	51.7
95°	83.9	100.0	102.9	102.9	100.0
97.5°	139.7	154.5	160.9	160.9	160.9
100°	204.0	217.2	221.8	221.8	220.1
102.5°	271.8	281.5	287.9	289.6	287.9
105°	345.9	350.5	354.0	356.9	356.9
107.5°	419.5	426.4	426.4	427.6	419.5
110°	490.8	500.0	500.0	500.0	495.3

TEST NUMBER: P920876

CATALOG NUMBER: DFN2DIP-TR3F0-080D070US935-RLLFLL

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	567.7	577.6	575.8	571.2	567.7
115°	643.6	652.8	650.0	648.2	643.6
117.5°	718.8	731.5	723.5	718.8	714.3
120°	794.7	807.4	794.7	794.7	789.5
122.5°	863.7	879.8	871.8	867.1	863.7
125°	936.1	950.5	945.9	940.7	939.0
127.5°	1006.8	1024.6	1018.3	1011.4	1006.8
130°	1072.9	1093.6	1090.7	1087.3	1080.9
132.5°	1147.0	1163.1	1164.2	1156.2	1151.6
135°	1210.8	1228.6	1232.1	1230.3	1225.7
137.5°	1282.0	1296.4	1299.2	1298.1	1291.2
140°	1344.7	1359.1	1367.1	1367.1	1360.8
142.5°	1409.0	1423.4	1428.0	1429.7	1423.4
145°	1470.0	1481.4	1490.6	1492.4	1486.1
147.5°	1524.6	1538.9	1545.8	1548.7	1542.4
150°	1580.9	1590.6	1597.0	1602.1	1597.0
152.5°	1630.8	1640.6	1648.6	1655.0	1648.6
155°	1680.8	1685.4	1690.7	1698.7	1693.5
157.5°	1724.0	1727.4	1730.3	1741.8	1733.7
160°	1762.5	1765.9	1767.6	1777.4	1770.5
162.5°	1798.1	1798.1	1799.8	1810.7	1802.7
165°	1828.5	1826.8	1826.8	1838.3	1830.2
167.5°	1856.1	1851.0	1851.0	1862.4	1854.4
170°	1876.8	1872.2	1870.5	1882.0	1872.2
172.5°	1891.2	1886.5	1884.8	1896.3	1886.5
175°	1902.6	1898.1	1894.6	1906.1	1896.3
177.5°	1909.0	1904.4	1900.9	1910.7	1900.9
180°	1906.1	1906.1	1906.1	1906.1	1906.1

TEST NUMBER: P920876

CATALOG NUMBER: DFN2DIP-TR3F0-080D070US935-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	11.71	12.56	12.66	13.52	14.76	7.69	8.54	8.63	9.49	10.73
	3H	13.38	14.14	14.34	15.11	16.37	8.87	9.63	9.83	10.60	11.86
	4H	13.99	14.70	14.95	15.67	16.94	9.32	10.04	10.29	11.01	12.28
	6H	14.40	15.06	15.38	16.04	17.32	9.64	10.30	10.62	11.27	12.56
	8H	14.52	15.15	15.51	16.14	17.42	9.73	10.36	10.71	11.35	12.63
	12H	14.58	15.18	15.57	16.16	17.47	9.77	10.37	10.76	11.35	12.66
4H	2H	11.73	12.45	12.71	13.42	14.69	8.28	9.00	9.26	9.97	11.24
	3H	13.55	14.15	14.54	15.15	16.43	9.63	10.22	10.61	11.22	12.51
	4H	14.24	14.78	15.23	15.78	17.08	10.17	10.72	11.16	11.71	13.02
	6H	14.75	15.21	15.75	16.23	17.54	10.59	11.05	11.59	12.07	13.38
	8H	14.92	15.35	15.92	16.36	17.68	10.71	11.15	11.72	12.16	13.48
	12H	15.01	15.40	16.03	16.43	17.75	10.77	11.17	11.80	12.19	13.52
8H	4H	14.21	14.64	15.21	15.65	16.97	10.45	10.88	11.45	11.89	13.21
	6H	14.76	15.12	15.79	16.17	17.49	10.96	11.32	11.99	12.37	13.69
	8H	14.97	15.29	16.01	16.33	17.67	11.15	11.46	12.18	12.50	13.84
	12H	15.11	15.39	16.15	16.42	17.80	11.26	11.54	12.30	12.57	13.95
12H	4H	14.16	14.55	15.18	15.58	16.90	10.45	10.85	11.48	11.87	13.20
	6H	14.74	15.06	15.78	16.09	17.43	11.01	11.32	12.04	12.36	13.70
	8H	14.95	15.23	15.99	16.26	17.65	11.21	11.49	12.25	12.52	13.90

END OF REPORT