

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: P931400

Luminaire Tested: DFN2DS-TR3F0-070DS930-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931400
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR3F0-070DS930-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

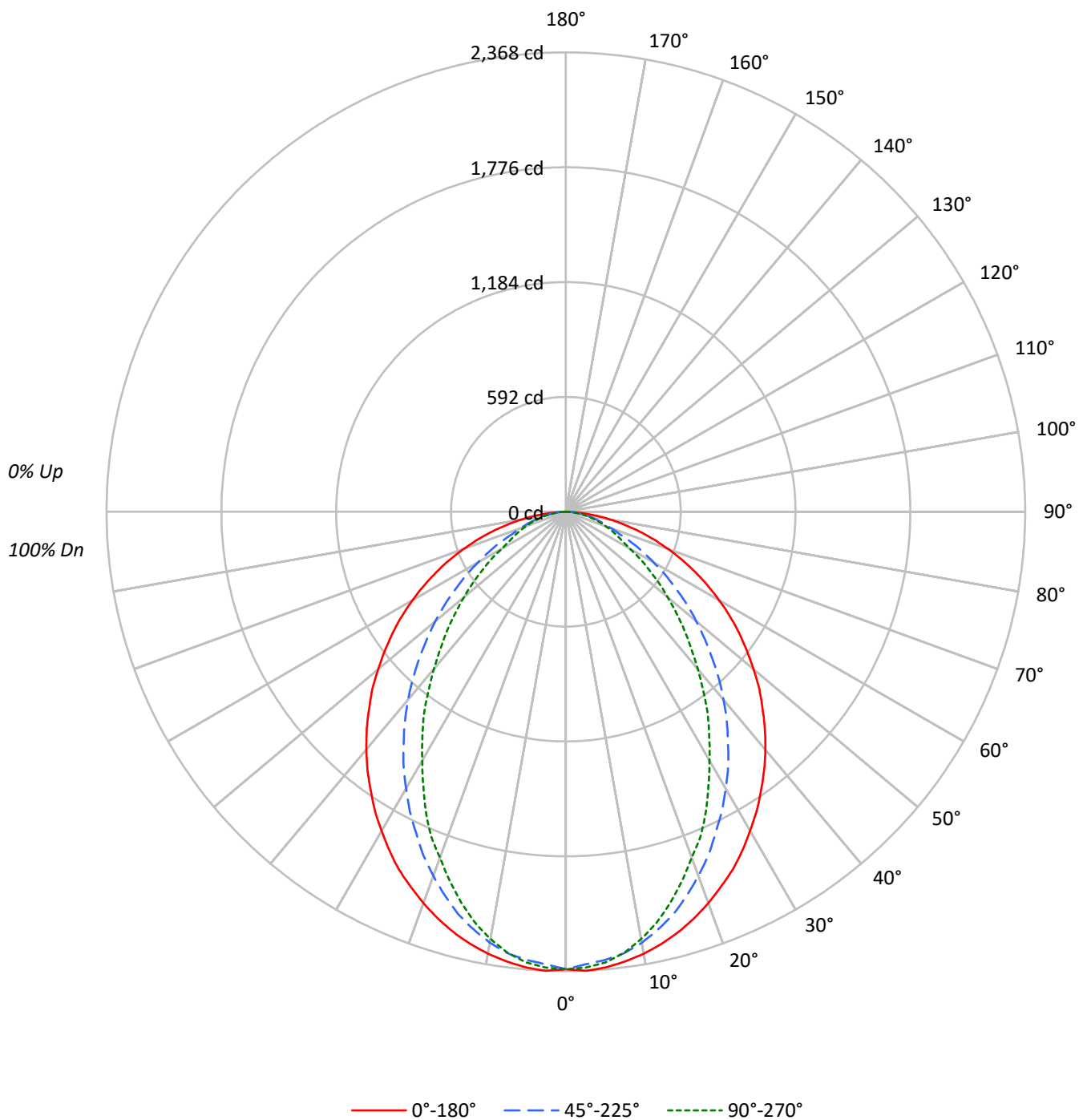
Lumens per Lamp: N/A
Luminaire Lumens: 4849.2 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 74.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9971
Total Harmonic Distortion (THDi): 0.049
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931400

CATALOG NUMBER: DFN2DS-TR3F0-070DS930-RLL

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2938	2938	2938
5°	2949	2901	2917
10°	2927	2854	2830
15°	2893	2769	2690
20°	2847	2648	2515
25°	2799	2511	2347
30°	2733	2370	2131
35°	2668	2217	1941
40°	2603	2058	1722
45°	2527	1880	1523
50°	2449	1700	1328
55°	2369	1506	1141
60°	2276	1303	947
65°	2171	1095	862
70°	2045	901	792
75°	1890	822	740
80°	1668	735	675
85°	1311	579	579

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2527 cd/sqm

TEST NUMBER: P931400

CATALOG NUMBER: DFN2DS-TR3F0-070DS930-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.0	4.6
10°-20°	606.6	12.5
20°-30°	851.7	17.6
30°-40°	928.4	19.1
40°-50°	853.3	17.6
50°-60°	670.1	13.8
60°-70°	436.2	9.0
70°-80°	224.5	4.6
80°-90°	57.3	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1679.3	34.6
0°-40°	2607.7	53.8
0°-60°	4131.2	85.2
0°-90°	4849.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4849.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2358	2358	2358	2358	2358	
5°	2358	2347	2319	2339	2332	224
15°	2243	2219	2147	2106	2085	632
25°	2036	1967	1826	1739	1707	936
35°	1754	1645	1458	1323	1276	1098
45°	1434	1291	1067	915	864	1107
55°	1090	924	693	566	525	974
65°	736	563	371	299	292	730
75°	393	243	171	156	154	415
85°	92	47	40	40	40	110
90°	0	0	0	0	0	

TEST NUMBER: P931400

CATALOG NUMBER: DFN2DS-TR3F0-070DS930-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2357.9	2357.9	2357.9	2357.9	2357.9
2.5°	2368.5	2357.9	2334.3	2355.8	2351.5
5°	2357.9	2347.2	2319.4	2338.6	2332.3
7.5°	2338.6	2325.9	2296.1	2304.4	2293.8
10°	2313.1	2298.1	2255.5	2249.0	2236.3
12.5°	2281.1	2261.9	2204.2	2191.5	2167.9
15°	2242.6	2219.1	2146.6	2106.1	2084.9
17.5°	2197.8	2163.7	2074.0	2027.1	1992.9
20°	2146.6	2103.8	1997.2	1944.0	1896.9
22.5°	2091.2	2042.1	1918.2	1845.7	1813.9
25°	2035.7	1967.3	1826.5	1739.1	1707.0
27.5°	1969.6	1896.9	1741.2	1640.9	1591.8
30°	1899.2	1817.9	1647.2	1538.6	1480.9
32.5°	1830.8	1732.6	1557.8	1429.7	1376.2
35°	1754.0	1645.2	1457.5	1323.1	1276.0
37.5°	1679.4	1561.9	1363.6	1216.1	1163.0
40°	1600.3	1472.5	1265.3	1113.9	1058.4
42.5°	1519.3	1382.8	1167.2	1009.2	956.1
45°	1434.0	1290.9	1067.0	915.3	864.1
47.5°	1352.9	1201.5	971.0	819.3	772.5
50°	1263.2	1111.8	877.0	729.7	685.1
52.5°	1175.6	1015.6	787.4	646.5	606.0
55°	1090.3	923.9	693.4	565.5	525.0
57.5°	1002.9	832.2	610.4	490.8	456.6
60°	913.3	742.5	522.7	414.1	379.9
62.5°	825.8	655.2	448.0	345.7	328.7
65°	736.2	563.2	371.3	298.9	292.3
67.5°	650.9	477.9	298.9	262.3	256.1
70°	561.2	394.8	247.4	226.2	217.5
72.5°	475.9	317.8	206.9	190.0	185.7
75°	392.6	243.1	170.7	155.7	153.7
77.5°	309.5	172.7	134.5	125.8	121.6
80°	232.5	123.8	102.4	94.0	94.0
82.5°	162.1	83.3	70.4	66.1	66.1
85°	91.7	46.9	40.5	40.5	40.5
87.5°	34.1	17.0	17.0	14.9	14.9
90°	0.0	0.0	0.0	0.0	0.0

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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	14.98	16.50	15.34	16.81	17.13	10.94	12.46	11.30	12.77	13.09
	3H	16.74	18.11	17.12	18.44	18.80	12.20	13.57	12.58	13.90	14.26
	4H	17.41	18.69	17.81	19.04	19.42	12.71	13.99	13.11	14.34	14.71
	6H	17.90	19.08	18.31	19.45	19.84	13.09	14.27	13.50	14.64	15.03
	8H	18.07	19.19	18.49	19.58	19.98	13.21	14.34	13.64	14.73	15.13
	12H	18.17	19.25	18.60	19.63	20.06	13.29	14.37	13.72	14.75	15.18
4H	2H	15.08	16.36	15.48	16.71	17.09	11.64	12.92	12.04	13.26	13.64
	3H	17.02	18.08	17.43	18.48	18.88	13.08	14.14	13.49	14.54	14.94
	4H	17.77	18.72	18.20	19.14	19.58	13.68	14.63	14.11	15.05	15.49
	6H	18.36	19.19	18.81	19.63	20.09	14.17	15.00	14.62	15.44	15.90
	8H	18.57	19.35	19.04	19.79	20.26	14.33	15.11	14.79	15.55	16.02
	12H	18.73	19.42	19.21	19.90	20.37	14.45	15.14	14.93	15.62	16.09
8H	4H	17.79	18.57	18.25	19.01	19.48	14.03	14.81	14.49	15.25	15.72
	6H	18.43	19.07	18.92	19.56	20.04	14.62	15.26	15.12	15.75	16.23
	8H	18.68	19.25	19.19	19.76	20.25	14.84	15.42	15.35	15.93	16.41
	12H	18.88	19.39	19.39	19.88	20.45	15.02	15.53	15.53	16.02	16.59
12H	4H	17.77	18.47	18.26	18.95	19.42	14.07	14.77	14.56	15.25	15.72
	6H	18.41	18.99	18.92	19.50	19.98	14.68	15.26	15.20	15.77	16.26
	8H	18.69	19.20	19.20	19.69	20.26	14.95	15.46	15.46	15.96	16.52