

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: P931323

Luminaire Tested: DFN2DS-TR3F0-030DS850-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931323
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR3F0-030DS850-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

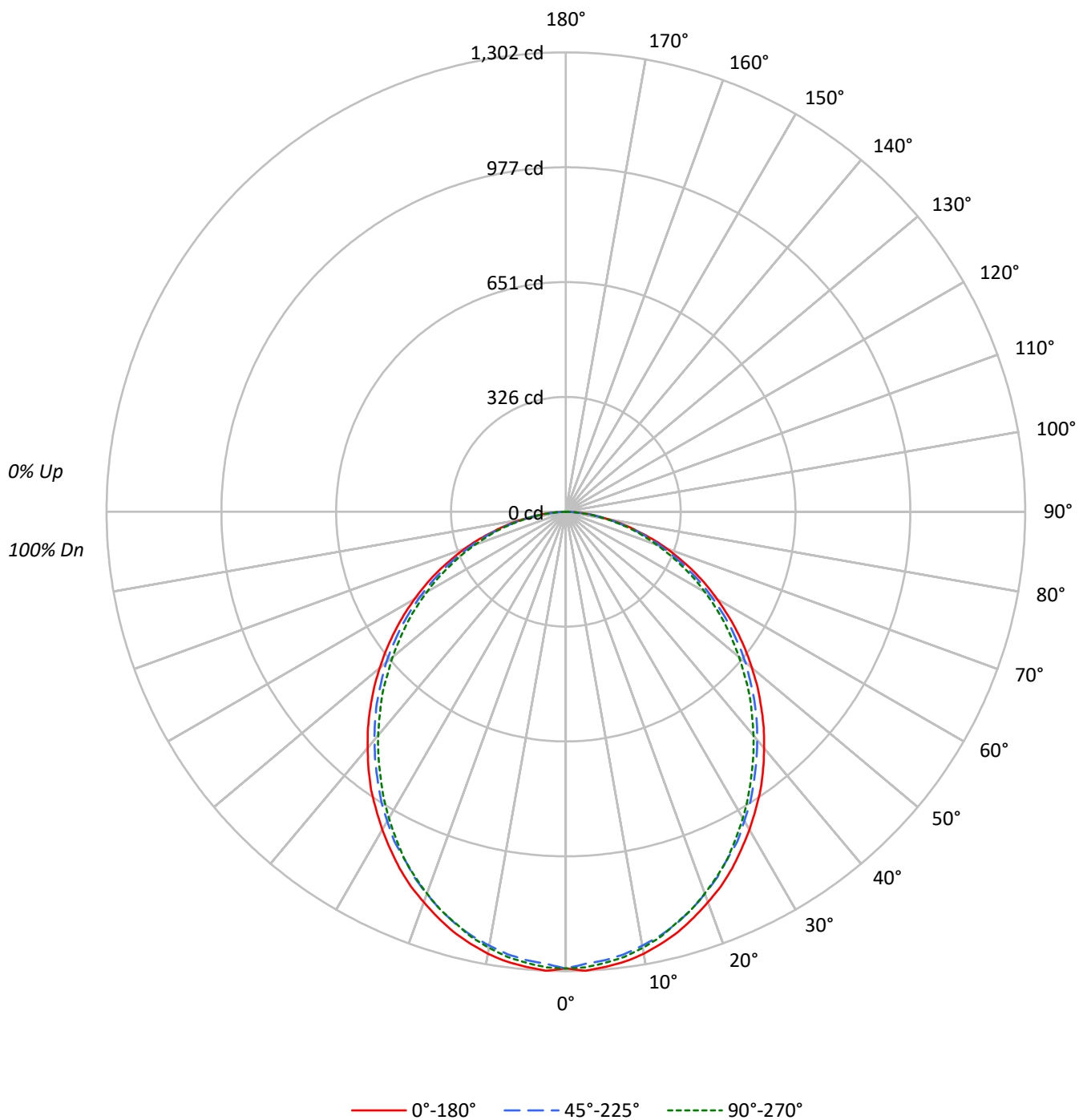
Lumens per Lamp: N/A
Luminaire Lumens: 3293.8 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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: P931323

CATALOG NUMBER: DFN2DS-TR3F0-030DS850-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931323

CATALOG NUMBER: DFN2DS-TR3F0-030DS850-FLL

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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1613	1613	1613
5°	1619	1596	1605
10°	1610	1580	1588
15°	1590	1559	1558
20°	1561	1529	1527
25°	1533	1491	1491
30°	1497	1456	1444
35°	1464	1415	1394
40°	1422	1373	1347
45°	1380	1332	1299
50°	1335	1289	1243
55°	1287	1239	1193
60°	1235	1179	1136
65°	1179	1120	1068
70°	1107	1048	998
75°	1006	965	941
80°	893	866	822
85°	729	695	623

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1380 cd/sqm

TEST NUMBER: P931323

CATALOG NUMBER: DFN2DS-TR3F0-030DS850-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.8	3.7
10°-20°	342.8	10.4
20°-30°	503.8	15.3
30°-40°	585.2	17.8
40°-50°	584.4	17.7
50°-60°	509.6	15.5
60°-70°	376.7	11.4
70°-80°	213.1	6.5
80°-90°	56.3	1.7
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°	968.5	29.4
0°-40°	1553.6	47.2
0°-60°	2647.7	80.4
0°-90°	3293.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1294	1290	1276	1286	1283	123
15°	1232	1225	1209	1214	1208	347
25°	1115	1106	1084	1087	1084	513
35°	962	950	930	922	916	601
45°	783	774	756	742	737	604
55°	593	585	570	555	549	530
65°	400	392	380	368	362	395
75°	209	207	200	193	196	223
85°	51	50	49	45	44	60
90°	0	0	0	0	0	

TEST NUMBER: P931323

CATALOG NUMBER: DFN2DS-TR3F0-030DS850-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.5	1294.5	1294.5	1294.5	1294.5
2.5°	1302.1	1295.9	1282.1	1294.5	1292.2
5°	1294.5	1289.7	1275.9	1285.9	1283.4
7.5°	1285.9	1278.5	1264.7	1274.8	1272.2
10°	1272.2	1263.5	1248.6	1258.5	1254.8
12.5°	1253.5	1246.1	1231.2	1237.3	1234.9
15°	1232.3	1225.0	1208.7	1213.7	1207.5
17.5°	1206.1	1198.8	1182.5	1188.7	1182.5
20°	1177.5	1170.1	1152.7	1156.4	1151.5
22.5°	1149.0	1137.8	1121.5	1121.5	1119.0
25°	1115.3	1105.5	1084.3	1086.7	1084.3
27.5°	1077.9	1069.2	1053.1	1049.4	1043.2
30°	1040.7	1030.7	1012.1	1008.3	1003.3
32.5°	1000.9	993.4	973.5	965.9	960.9
35°	962.3	949.9	929.9	922.4	916.1
37.5°	918.7	907.5	887.5	878.8	872.6
40°	873.9	863.9	843.9	832.9	827.9
42.5°	830.3	820.3	800.5	787.9	780.5
45°	783.1	774.3	755.6	741.9	736.9
47.5°	736.9	728.3	708.3	694.6	687.1
50°	688.4	682.1	664.7	647.3	641.1
52.5°	641.1	632.4	616.3	602.5	593.8
55°	592.6	585.1	570.1	555.3	549.1
57.5°	544.0	537.8	521.6	506.6	501.6
60°	495.4	490.5	473.1	459.3	455.7
62.5°	448.1	439.4	427.0	414.5	409.6
65°	399.7	392.1	379.7	368.5	362.3
67.5°	349.9	343.6	332.4	323.7	318.7
70°	303.8	298.8	287.6	278.8	273.9
72.5°	256.5	251.4	245.2	236.5	232.9
75°	209.0	206.7	200.4	193.0	195.5
77.5°	166.8	161.8	159.3	155.6	151.9
80°	124.5	123.2	120.7	117.0	114.6
82.5°	84.6	84.6	83.5	78.4	78.4
85°	51.0	49.8	48.6	44.8	43.6
87.5°	22.4	20.0	17.4	13.8	12.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931323

CATALOG NUMBER: DFN2DS-TR3F0-030DS850-FLL

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	12.94	14.55	13.31	14.87	15.18	12.50	14.11	12.86	14.42	14.74
	3H	14.69	16.15	15.07	16.48	16.84	14.20	15.66	14.58	15.98	16.34
	4H	15.34	16.71	15.74	17.06	17.43	14.85	16.21	15.24	16.56	16.94
	6H	15.81	17.08	16.22	17.44	17.83	15.31	16.58	15.72	16.94	17.33
	8H	15.95	17.16	16.38	17.55	17.95	15.45	16.66	15.87	17.05	17.45
	12H	16.04	17.20	16.47	17.58	18.01	15.53	16.69	15.96	17.07	17.50
4H	2H	13.50	14.87	13.90	15.22	15.60	13.15	14.52	13.55	14.87	15.24
	3H	15.48	16.63	15.89	17.02	17.42	15.07	16.22	15.48	16.62	17.02
	4H	16.26	17.29	16.69	17.71	18.14	15.83	16.87	16.26	17.28	17.72
	6H	16.85	17.76	17.31	18.20	18.65	16.42	17.33	16.87	17.77	18.22
	8H	17.04	17.89	17.50	18.33	18.80	16.60	17.45	17.06	17.89	18.36
	12H	17.17	17.93	17.65	18.41	18.88	16.72	17.48	17.20	17.96	18.43
8H	4H	16.53	17.38	16.99	17.82	18.28	16.16	17.00	16.62	17.44	17.91
	6H	17.24	17.95	17.74	18.44	18.91	16.86	17.57	17.36	18.05	18.53
	8H	17.50	18.13	18.01	18.64	19.13	17.11	17.74	17.62	18.25	18.73
	12H	17.70	18.26	18.21	18.75	19.31	17.29	17.85	17.80	18.34	18.90
12H	4H	16.56	17.32	17.04	17.79	18.26	16.19	16.95	16.67	17.43	17.90
	6H	17.29	17.92	17.80	18.43	18.91	16.92	17.55	17.43	18.06	18.55
	8H	17.60	18.16	18.11	18.65	19.21	17.23	17.78	17.73	18.27	18.83