

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: P931349

Luminaire Tested: DFN2DS-TR3F0-040DS940-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931349
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-TR3F0-040DS940-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

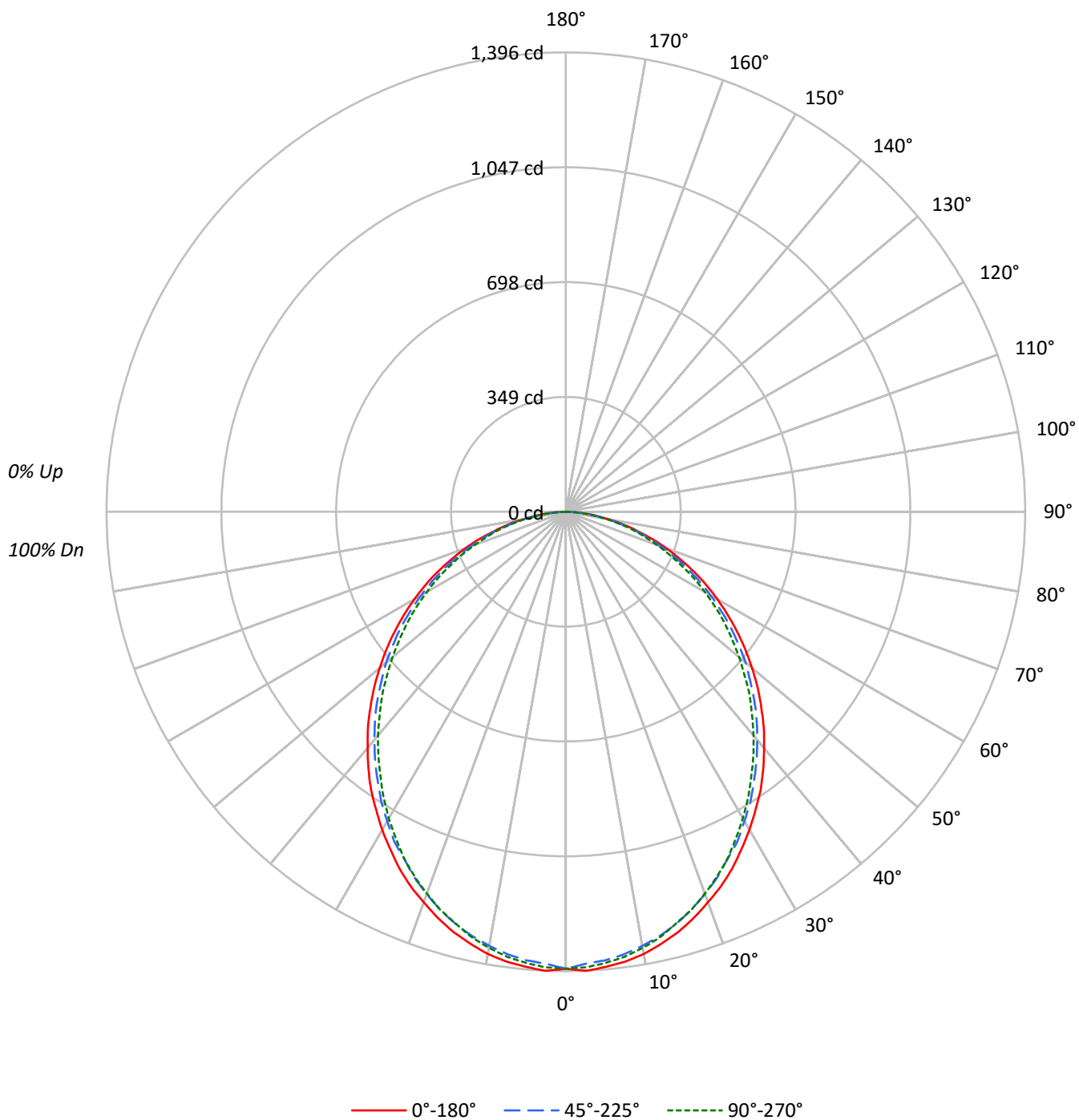
Lumens per Lamp: N/A
Luminaire Lumens: 3532.3 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 39.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931349

CATALOG NUMBER: DFN2DS-TR3F0-040DS940-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931349

CATALOG NUMBER: DFN2DS-TR3F0-040DS940-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°	1730	1730	1730
5°	1737	1712	1722
10°	1726	1694	1703
15°	1705	1672	1671
20°	1675	1639	1638
25°	1645	1599	1599
30°	1606	1562	1548
35°	1570	1517	1495
40°	1525	1472	1444
45°	1480	1428	1393
50°	1431	1382	1333
55°	1381	1328	1279
60°	1324	1265	1218
65°	1264	1201	1146
70°	1187	1124	1070
75°	1079	1035	1009
80°	958	929	881
85°	782	745	668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1480 cd/sqm

TEST NUMBER: P931349

CATALOG NUMBER: DFN2DS-TR3F0-040DS940-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	3.7
10°-20°	367.6	10.4
20°-30°	540.3	15.3
30°-40°	627.5	17.8
40°-50°	626.8	17.7
50°-60°	546.5	15.5
60°-70°	404.0	11.4
70°-80°	228.6	6.5
80°-90°	60.3	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°	1038.6	29.4
0°-40°	1666.2	47.2
0°-60°	2839.4	80.4
0°-90°	3532.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3532.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1388	1383	1368	1379	1376	132
15°	1322	1314	1296	1302	1295	372
25°	1196	1186	1163	1165	1163	550
35°	1032	1019	997	989	982	644
45°	840	830	810	796	790	648
55°	636	627	612	595	589	568
65°	429	420	407	395	389	424
75°	224	222	215	207	210	239
85°	55	53	52	48	47	64
90°	0	0	0	0	0	

TEST NUMBER: P931349

CATALOG NUMBER: DFN2DS-TR3F0-040DS940-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1396.4	1389.7	1375.0	1388.3	1385.8
5°	1388.3	1383.0	1368.3	1378.9	1376.4
7.5°	1378.9	1371.0	1356.3	1367.1	1364.4
10°	1364.4	1355.0	1339.1	1349.7	1345.7
12.5°	1344.2	1336.3	1320.3	1327.0	1324.3
15°	1321.6	1313.6	1296.3	1301.6	1295.0
17.5°	1293.6	1285.6	1268.2	1274.8	1268.2
20°	1262.8	1254.9	1236.2	1240.1	1235.0
22.5°	1232.2	1220.2	1202.8	1202.8	1200.1
25°	1196.1	1185.5	1162.8	1165.4	1162.8
27.5°	1156.0	1146.7	1129.5	1125.4	1118.8
30°	1116.1	1105.4	1085.4	1081.4	1076.0
32.5°	1073.3	1065.4	1044.0	1036.0	1030.5
35°	1032.0	1018.7	997.3	989.2	982.5
37.5°	985.2	973.2	951.8	942.5	935.8
40°	937.2	926.4	905.0	893.2	887.8
42.5°	890.5	879.7	858.5	845.0	837.1
45°	839.7	830.5	810.3	795.8	790.3
47.5°	790.3	780.9	759.6	744.9	737.0
50°	738.2	731.5	712.9	694.2	687.5
52.5°	687.5	678.2	660.9	646.2	636.8
55°	635.6	627.4	611.5	595.4	588.8
57.5°	583.4	576.8	559.3	543.3	538.0
60°	531.3	526.0	507.4	492.7	488.6
62.5°	480.6	471.2	458.0	444.6	439.2
65°	428.6	420.5	407.2	395.2	388.6
67.5°	375.2	368.4	356.5	347.2	341.8
70°	325.8	320.4	308.4	299.0	293.7
72.5°	275.1	269.7	263.1	253.7	249.7
75°	224.2	221.7	214.9	206.9	209.6
77.5°	178.8	173.5	170.8	166.8	162.9
80°	133.5	132.1	129.4	125.5	122.8
82.5°	90.8	90.8	89.6	84.1	84.1
85°	54.7	53.4	52.1	48.0	46.7
87.5°	24.1	21.4	18.7	14.7	13.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931349

CATALOG NUMBER: DFN2DS-TR3F0-040DS940-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	13.19	14.80	13.55	15.11	15.43	12.74	14.35	13.11	14.67	14.98
	3H	14.94	16.39	15.31	16.72	17.08	14.45	15.90	14.82	16.23	16.59
	4H	15.58	16.95	15.98	17.30	17.68	15.09	16.46	15.49	16.81	17.18
	6H	16.05	17.32	16.46	17.69	18.08	15.55	16.82	15.96	17.18	17.58
	8H	16.20	17.41	16.62	17.80	18.19	15.69	16.90	16.12	17.29	17.69
	12H	16.29	17.45	16.72	17.83	18.26	15.77	16.93	16.20	17.32	17.74
4H	2H	13.75	15.12	14.15	15.46	15.84	13.39	14.76	13.79	15.11	15.49
	3H	15.72	16.87	16.13	17.27	17.67	15.32	16.46	15.73	16.86	17.26
	4H	16.50	17.54	16.93	17.95	18.39	16.08	17.11	16.51	17.52	17.96
	6H	17.10	18.00	17.55	18.44	18.90	16.66	17.57	17.12	18.01	18.46
	8H	17.28	18.13	17.75	18.57	19.04	16.85	17.69	17.31	18.14	18.60
	12H	17.42	18.18	17.90	18.65	19.12	16.96	17.72	17.44	18.20	18.67
8H	4H	16.77	17.62	17.23	18.06	18.53	16.40	17.24	16.86	17.69	18.15
	6H	17.49	18.19	17.98	18.68	19.15	17.10	17.81	17.60	18.30	18.77
	8H	17.75	18.38	18.26	18.88	19.37	17.35	17.98	17.86	18.49	18.98
	12H	17.95	18.50	18.45	18.99	19.56	17.53	18.09	18.04	18.58	19.14
12H	4H	16.80	17.56	17.28	18.03	18.50	16.43	17.19	16.91	17.67	18.14
	6H	17.53	18.16	18.04	18.67	19.16	17.16	17.80	17.67	18.30	18.79
	8H	17.85	18.40	18.35	18.89	19.46	17.47	18.03	17.97	18.52	19.08