

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: P931332

Luminaire Tested: DFN2DS-TR3F0-030DS940-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931332
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-TR3F0-030DS940-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

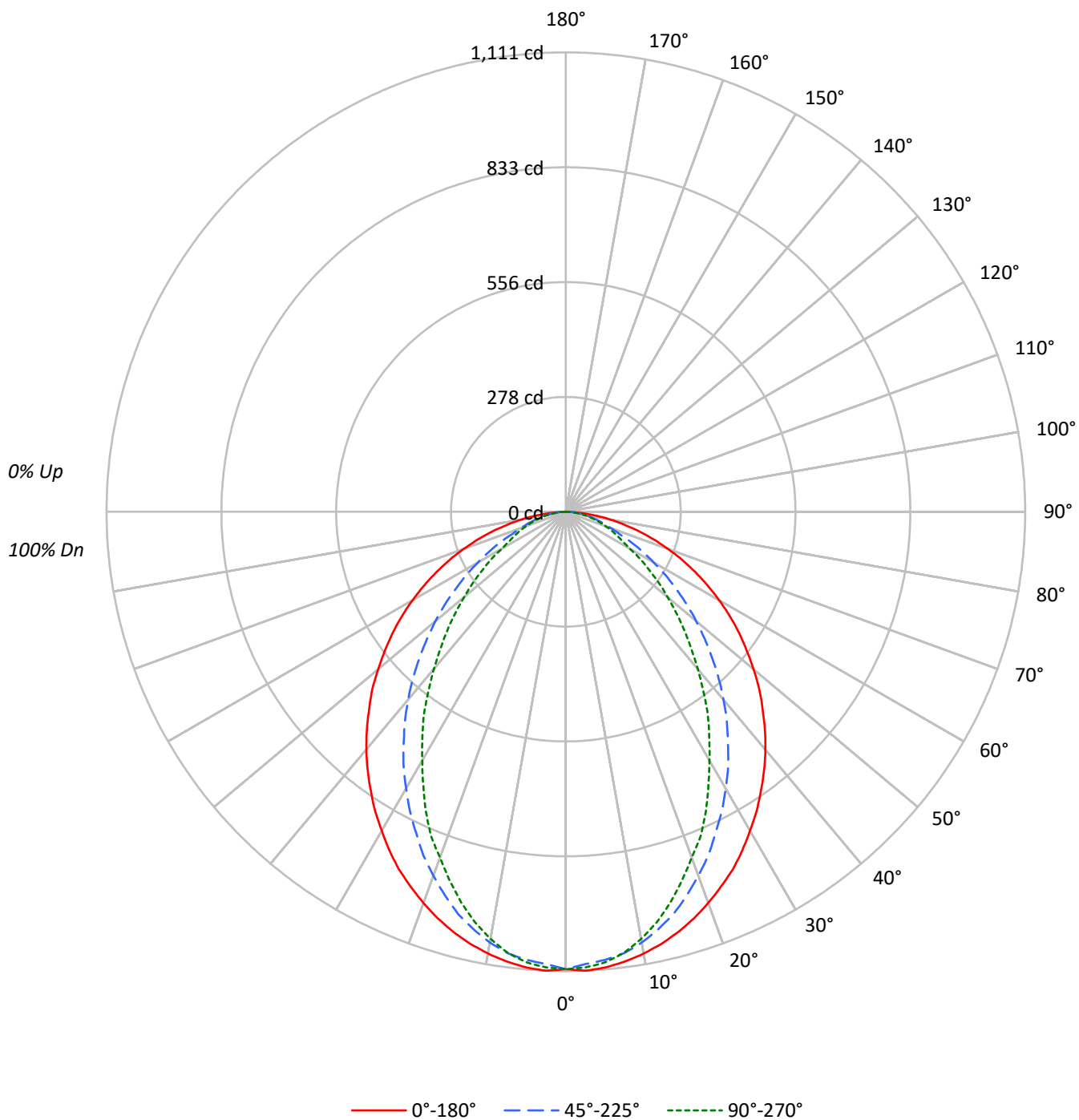
Lumens per Lamp: N/A
Luminaire Lumens: 2274.6 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	1378	1378	1378
5°	1383	1361	1368
10°	1373	1339	1327
15°	1357	1299	1262
20°	1335	1242	1180
25°	1313	1178	1101
30°	1282	1112	999
35°	1252	1040	910
40°	1221	965	808
45°	1185	882	714
50°	1149	798	623
55°	1111	707	535
60°	1067	611	444
65°	1018	513	404
70°	959	423	372
75°	886	386	347
80°	783	344	316
85°	615	272	272

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1185 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.7	4.6
10°-20°	284.6	12.5
20°-30°	399.5	17.6
30°-40°	435.5	19.1
40°-50°	400.3	17.6
50°-60°	314.3	13.8
60°-70°	204.6	9.0
70°-80°	105.3	4.6
80°-90°	26.9	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°	787.7	34.6
0°-40°	1223.2	53.8
0°-60°	1937.8	85.2
0°-90°	2274.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2274.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1106	1106	1106	1106	1106	
5°	1106	1101	1088	1097	1094	105
15°	1052	1041	1007	988	978	296
25°	955	923	857	816	801	439
35°	823	772	684	621	598	515
45°	673	606	500	429	405	519
55°	511	433	325	265	246	457
65°	345	264	174	140	137	342
75°	184	114	80	73	72	195
85°	43	22	19	19	19	52
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1106.0	1106.0	1106.0	1106.0	1106.0
2.5°	1111.0	1106.0	1094.9	1105.0	1103.0
5°	1106.0	1101.0	1088.0	1097.0	1093.9
7.5°	1097.0	1091.0	1077.0	1080.9	1075.9
10°	1084.9	1078.0	1058.0	1054.9	1049.0
12.5°	1070.0	1060.9	1033.9	1027.9	1016.9
15°	1051.9	1040.9	1006.9	987.9	977.9
17.5°	1030.9	1014.9	972.8	950.9	934.8
20°	1006.9	986.8	936.8	911.9	889.8
22.5°	980.9	957.8	899.8	865.8	850.8
25°	954.9	922.8	856.8	815.7	800.7
27.5°	923.8	889.8	816.7	769.7	746.6
30°	890.8	852.8	772.7	721.7	694.6
32.5°	858.7	812.7	730.7	670.6	645.5
35°	822.8	771.7	683.6	620.6	598.5
37.5°	787.7	732.6	639.6	570.4	545.5
40°	750.7	690.7	593.5	522.4	496.5
42.5°	712.6	648.7	547.5	473.4	448.4
45°	672.7	605.5	500.5	429.3	405.3
47.5°	634.6	563.6	455.5	384.3	362.3
50°	592.6	521.5	411.4	342.3	321.3
52.5°	551.4	476.4	369.4	303.3	284.3
55°	511.4	433.3	325.2	265.3	246.3
57.5°	470.4	390.3	286.3	230.2	214.2
60°	428.3	348.3	245.2	194.2	178.2
62.5°	387.4	307.3	210.2	162.2	154.2
65°	345.3	264.2	174.1	140.1	137.1
67.5°	305.3	224.2	140.1	123.1	120.1
70°	263.2	185.2	116.0	106.1	102.0
72.5°	223.2	149.1	97.0	89.1	87.1
75°	184.1	114.1	80.1	73.1	72.1
77.5°	145.1	81.0	63.1	59.1	57.0
80°	109.1	58.1	48.0	44.1	44.1
82.5°	76.0	39.1	33.0	31.0	31.0
85°	43.0	21.9	19.0	19.0	19.0
87.5°	16.1	7.9	7.9	7.0	7.0
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	12.35	13.87	12.71	14.18	14.50	8.31	9.83	8.67	10.14	10.46
	3H	14.11	15.48	14.49	15.81	16.17	9.57	10.94	9.95	11.27	11.63
	4H	14.78	16.06	15.18	16.41	16.79	10.08	11.36	10.48	11.71	12.08
	6H	15.27	16.45	15.68	16.82	17.21	10.46	11.64	10.87	12.01	12.40
	8H	15.43	16.56	15.86	16.95	17.35	10.58	11.71	11.01	12.10	12.50
	12H	15.54	16.62	15.97	17.00	17.43	10.66	11.74	11.09	12.12	12.55
4H	2H	12.45	13.73	12.85	14.08	14.46	9.00	10.29	9.40	10.63	11.01
	3H	14.39	15.45	14.80	15.85	16.25	10.45	11.51	10.86	11.91	12.31
	4H	15.14	16.09	15.57	16.51	16.95	11.05	12.00	11.48	12.42	12.86
	6H	15.73	16.56	16.18	17.00	17.46	11.54	12.37	11.99	12.81	13.27
	8H	15.94	16.72	16.41	17.16	17.63	11.70	12.48	12.16	12.92	13.39
	12H	16.09	16.79	16.58	17.27	17.74	11.82	12.51	12.30	12.99	13.46
8H	4H	15.16	15.94	15.62	16.38	16.85	11.40	12.18	11.86	12.62	13.09
	6H	15.80	16.44	16.29	16.93	17.41	11.99	12.63	12.49	13.12	13.60
	8H	16.05	16.62	16.56	17.13	17.62	12.21	12.79	12.72	13.30	13.78
	12H	16.25	16.76	16.76	17.25	17.82	12.39	12.90	12.90	13.39	13.96
12H	4H	15.14	15.84	15.63	16.32	16.79	11.44	12.14	11.93	12.62	13.09
	6H	15.78	16.36	16.29	16.87	17.35	12.05	12.63	12.57	13.14	13.63
	8H	16.06	16.57	16.57	17.06	17.63	12.33	12.84	12.83	13.33	13.89

END OF REPORT