

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: P931256

Luminaire Tested: DFN2DS-TR2F0-030DS930-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931256
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-TR2F0-030DS930-RLL
Description: 2 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

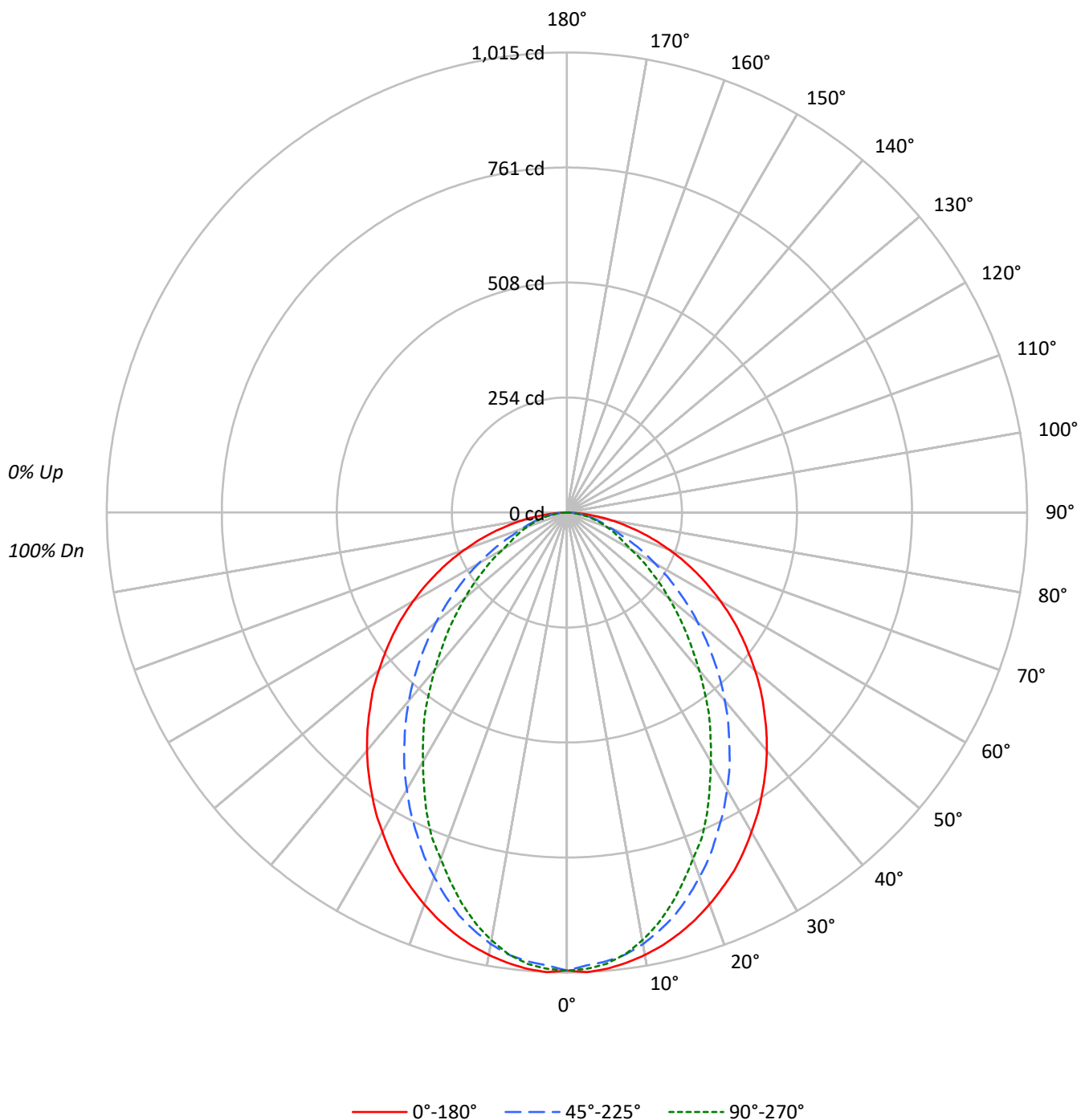
Lumens per Lamp: N/A
Luminaire Lumens: 2078.2 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
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: P931256

CATALOG NUMBER: DFN2DS-TR2F0-030DS930-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°	2254	2254	2254
5°	2262	2226	2238
10°	2245	2189	2171
15°	2219	2124	2063
20°	2184	2032	1930
25°	2147	1926	1800
30°	2096	1818	1634
35°	2047	1701	1489
40°	1997	1579	1321
45°	1939	1442	1168
50°	1879	1304	1019
55°	1817	1155	875
60°	1746	999	726
65°	1665	840	661
70°	1568	691	608
75°	1450	631	568
80°	1281	563	518
85°	1006	445	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1939 cd/sqm

TEST NUMBER: P931256

CATALOG NUMBER: DFN2DS-TR2F0-030DS930-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	4.6
10°-20°	260.0	12.5
20°-30°	365.0	17.6
30°-40°	397.9	19.1
40°-50°	365.7	17.6
50°-60°	287.2	13.8
60°-70°	186.9	9.0
70°-80°	96.2	4.6
80°-90°	24.6	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°	719.7	34.6
0°-40°	1117.6	53.8
0°-60°	1770.5	85.2
0°-90°	2078.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2078.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1010	1006	994	1002	1000	96
15°	961	951	920	903	894	271
25°	872	843	783	745	732	401
35°	752	705	625	567	547	471
45°	615	553	457	392	370	475
55°	467	396	297	242	225	418
65°	316	241	159	128	125	313
75°	168	104	73	67	66	178
85°	39	20	17	17	17	47
90°	0	0	0	0	0	

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CATALOG NUMBER: DFN2DS-TR2F0-030DS930-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1010.5	1010.5	1010.5	1010.5	1010.5
2.5°	1015.1	1010.5	1000.4	1009.6	1007.8
5°	1010.5	1006.0	994.1	1002.3	999.5
7.5°	1002.3	996.8	984.0	987.6	983.1
10°	991.3	984.9	966.7	963.8	958.4
12.5°	977.6	969.4	944.7	939.2	929.1
15°	961.1	951.0	920.0	902.6	893.5
17.5°	941.9	927.3	888.8	868.8	854.1
20°	920.0	901.6	855.9	833.2	813.0
22.5°	896.3	875.1	822.1	791.0	777.3
25°	872.5	843.1	782.8	745.3	731.5
27.5°	844.1	813.0	746.2	703.3	682.2
30°	813.9	779.1	706.0	659.4	634.6
32.5°	784.6	742.5	667.6	612.7	589.8
35°	751.8	705.1	624.6	567.0	546.9
37.5°	719.7	669.4	584.4	521.2	498.5
40°	685.9	631.1	542.3	477.3	453.6
42.5°	651.1	592.7	500.2	432.5	409.7
45°	614.6	553.2	457.3	392.3	370.3
47.5°	579.8	514.9	416.1	351.1	331.1
50°	541.4	476.4	375.9	312.7	293.6
52.5°	503.8	435.3	337.5	277.1	259.7
55°	467.2	395.9	297.1	242.4	225.0
57.5°	429.8	356.6	261.6	210.4	195.7
60°	391.4	318.3	224.0	177.4	162.8
62.5°	354.0	280.8	192.0	148.2	140.9
65°	315.5	241.4	159.1	128.0	125.3
67.5°	279.0	204.8	128.0	112.5	109.7
70°	240.5	169.2	106.0	96.9	93.2
72.5°	203.9	136.2	88.7	81.4	79.5
75°	168.2	104.2	73.2	66.7	65.9
77.5°	132.6	74.0	57.6	54.0	52.1
80°	99.7	53.1	43.8	40.3	40.3
82.5°	69.4	35.7	30.2	28.4	28.4
85°	39.3	20.0	17.4	17.4	17.4
87.5°	14.7	7.3	7.3	6.4	6.4
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	14.06	15.58	14.42	15.89	16.21	10.02	11.54	10.38	11.86	12.17
	3H	15.82	17.19	16.20	17.52	17.88	11.28	12.65	11.66	12.98	13.34
	4H	16.49	17.77	16.89	18.12	18.50	11.79	13.07	12.19	13.42	13.79
	6H	16.98	18.16	17.39	18.53	18.92	12.17	13.35	12.58	13.72	14.11
	8H	17.14	18.27	17.57	18.66	19.06	12.29	13.42	12.72	13.81	14.21
	12H	17.25	18.32	17.68	18.71	19.14	12.37	13.45	12.80	13.83	14.26
4H	2H	14.16	15.44	14.56	15.79	16.17	10.72	12.00	11.11	12.34	12.72
	3H	16.09	17.16	16.51	17.56	17.96	12.16	13.22	12.57	13.62	14.02
	4H	16.84	17.80	17.28	18.22	18.65	12.76	13.71	13.19	14.13	14.57
	6H	17.44	18.27	17.89	18.71	19.17	13.25	14.08	13.70	14.52	14.98
	8H	17.65	18.43	18.11	18.87	19.34	13.41	14.19	13.87	14.63	15.10
	12H	17.80	18.50	18.29	18.98	19.45	13.53	14.22	14.01	14.70	15.17
8H	4H	16.87	17.65	17.33	18.09	18.56	13.11	13.89	13.57	14.33	14.80
	6H	17.51	18.15	18.00	18.64	19.12	13.70	14.34	14.19	14.83	15.31
	8H	17.76	18.33	18.27	18.84	19.33	13.92	14.50	14.43	15.01	15.49
	12H	17.96	18.47	18.47	18.96	19.53	14.10	14.61	14.61	15.10	15.67
12H	4H	16.85	17.55	17.34	18.03	18.50	13.15	13.85	13.64	14.33	14.80
	6H	17.49	18.06	18.00	18.57	19.06	13.76	14.34	14.27	14.85	15.34
	8H	17.77	18.28	18.28	18.77	19.34	14.04	14.55	14.54	15.04	15.60