

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: P334144

Luminaire Tested: S124DP-S1195D927-4F0-1E-UDD-D

Issue Date: 3/3/2020

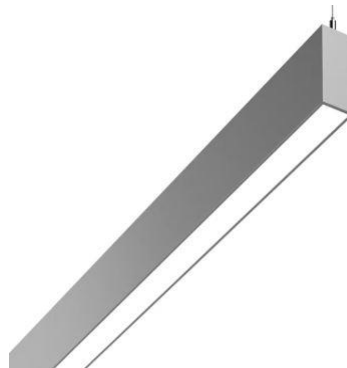
Test Information

Test Method: LM-79-2019
Report Number: P334144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DP-S1195D927-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1195 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3574.6 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Direct

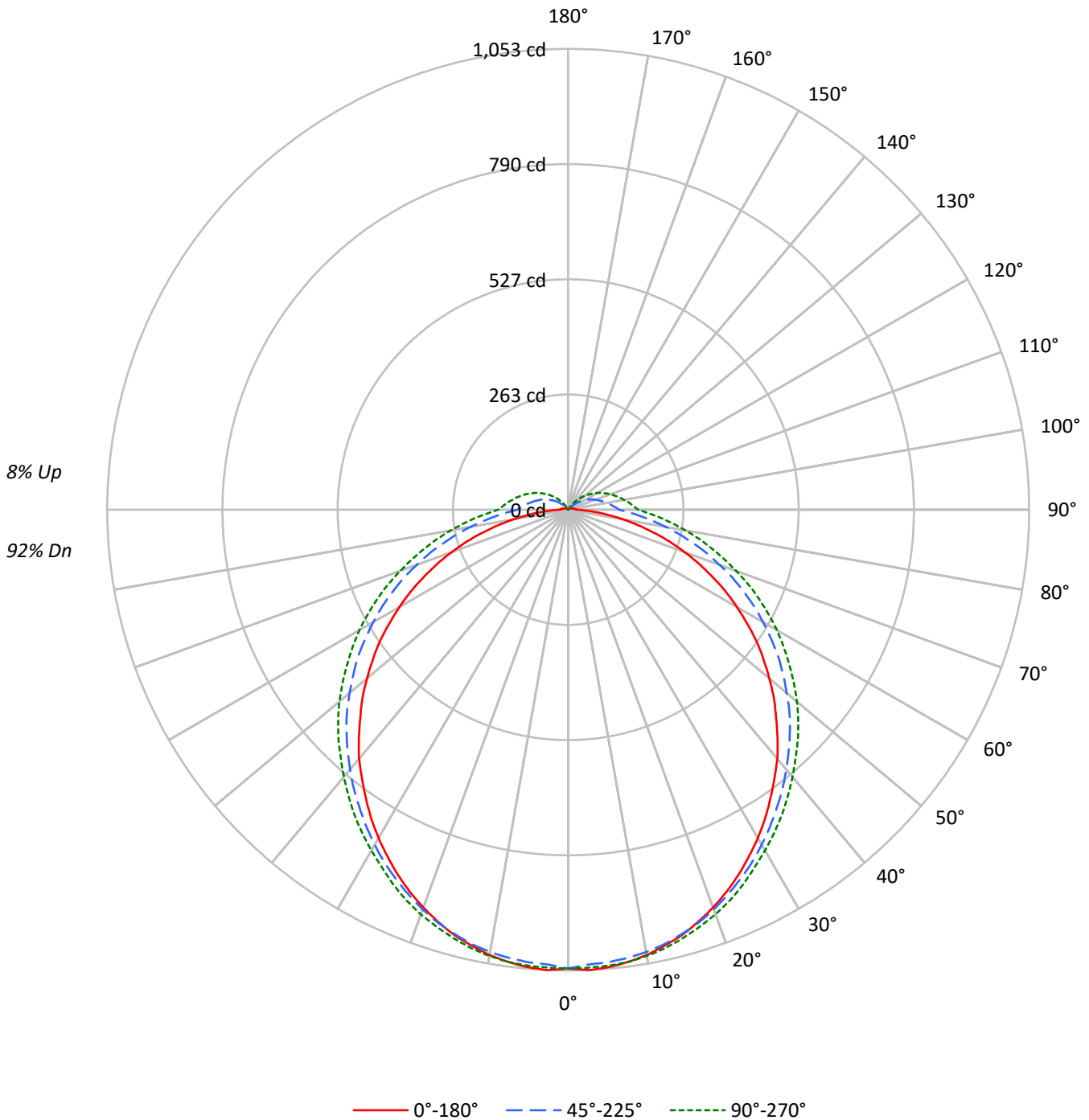
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92				
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74				
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60				
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50				
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43				
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37				
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32				
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28				
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25				
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22				
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8464	8464	8464
5°	8490	8272	8296
10°	8439	8137	8130
15°	8363	7980	7937
20°	8248	7807	7748
25°	8121	7613	7540
30°	7981	7421	7326
35°	7823	7223	7140
40°	7698	7036	6945
45°	7511	6863	6778
50°	7353	6663	6601
55°	7189	6476	6394
60°	6935	6235	6204
65°	6656	5979	5972
70°	6318	5685	5702
75°	5843	5362	5457
80°	5322	5051	5216
85°	4654	4776	5075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7511 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	2.8
10°-20°	284.6	8.0
20°-30°	430.4	12.0
30°-40°	520.7	14.6
40°-50°	550.4	15.4
50°-60°	518.0	14.5
60°-70°	429.9	12.0
70°-80°	301.7	8.4
80°-90°	170.1	4.8
90°-100°	101.2	2.8
100°-110°	75.0	2.1
110°-120°	50.3	1.4
120°-130°	28.3	0.8
130°-140°	12.2	0.3
140°-150°	2.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	814.3	22.8
0°-40°	1335.0	37.3
0°-60°	2403.4	67.2
0°-90°	3305.0	92.5
90°-120°	226.5	6.3
90°-150°	269.5	7.5
90°-180°	270.0	7.6
0°-180°	3574.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1050	1046	1038	1047	1046	100
15°	1006	1007	1004	1014	1013	284
25°	920	928	931	944	945	424
35°	805	820	831	848	851	504
45°	672	694	716	736	742	519
55°	526	551	586	609	616	469
65°	364	402	442	471	480	361
75°	202	245	295	328	338	215
85°	62	112	164	200	211	65
90°	19	66	116	150	160	13
95°	15	54	102	134	144	12
105°	11	34	78	107	116	12
115°	7	18	55	81	89	7
125°	5	4	33	55	62	5
135°	2	2	11	29	36	2
145°	1	0	0	7	12	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P334144

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.4	1048.4	1048.4	1048.4	1048.4
2.5°	1053.1	1049.6	1040.2	1048.4	1047.3
5°	1049.6	1046.1	1037.9	1047.3	1046.1
7.5°	1042.6	1040.2	1033.2	1043.8	1042.6
10°	1033.2	1032.0	1026.1	1036.7	1035.5
12.5°	1020.3	1020.3	1016.7	1026.1	1026.1
15°	1006.2	1007.4	1003.8	1014.4	1013.2
17.5°	987.4	990.9	989.7	1000.3	999.1
20°	967.4	971.0	972.1	983.9	983.9
22.5°	945.1	949.8	952.2	963.9	966.3
25°	920.5	927.5	931.0	944.0	945.1
27.5°	893.5	904.0	908.7	920.5	921.6
30°	866.5	875.9	884.1	897.0	899.3
32.5°	837.1	848.9	858.2	873.5	875.9
35°	805.4	819.5	831.2	847.7	851.2
37.5°	773.7	790.2	804.2	820.7	824.2
40°	743.2	758.5	774.9	792.5	797.2
42.5°	708.0	725.6	745.5	765.5	769.0
45°	671.6	693.9	716.2	736.1	742.0
47.5°	637.5	659.8	685.7	705.6	712.7
50°	600.0	625.8	651.6	675.1	682.1
52.5°	562.4	588.2	618.7	642.2	649.3
55°	526.0	550.6	585.9	609.3	616.4
57.5°	484.9	515.4	549.5	577.6	583.5
60°	445.0	475.5	514.2	541.2	550.6
62.5°	406.2	440.3	479.0	506.0	515.4
65°	364.0	401.5	441.5	470.8	480.2
67.5°	324.0	364.0	406.2	435.6	445.0
70°	283.0	322.9	367.5	399.2	407.4
72.5°	243.0	284.1	332.3	362.8	372.2
75°	201.9	245.4	294.7	327.6	338.1
77.5°	163.2	209.0	260.6	293.5	305.3
80°	128.0	174.9	226.6	261.8	271.2
82.5°	92.8	142.1	193.7	230.1	240.7
85°	62.2	111.5	164.4	199.6	211.3
87.5°	38.7	86.9	138.5	172.6	183.2
90°	18.8	65.7	116.2	150.3	159.7
92.5°	17.6	58.7	109.2	142.1	151.5
95°	15.3	54.0	102.1	133.8	144.4
97.5°	14.1	48.1	96.3	126.8	137.4
100°	12.9	43.4	89.2	120.9	129.1
102.5°	12.9	38.7	83.4	113.9	123.3
105°	10.6	34.0	77.5	106.8	116.2
107.5°	10.6	30.5	71.6	101.0	109.2
110°	9.4	25.8	66.9	93.9	103.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.2	22.3	61.1	86.9	96.3
115°	7.0	17.6	55.2	81.0	89.2
117.5°	7.0	14.1	49.3	74.0	83.4
120°	5.9	9.4	43.4	66.9	76.3
122.5°	5.9	5.9	37.6	61.1	69.3
125°	4.7	3.5	32.9	55.2	62.2
127.5°	4.7	3.5	27.0	48.1	56.4
130°	3.5	2.3	21.1	42.3	49.3
132.5°	3.5	2.3	16.4	36.4	43.4
135°	2.3	2.3	10.6	29.4	36.4
137.5°	2.3	1.2	5.9	23.5	29.4
140°	2.3	1.2	2.3	17.6	23.5
142.5°	1.2	1.2	0.0	12.9	17.6
145°	1.2	0.0	0.0	7.0	11.7
147.5°	1.2	0.0	0.0	1.2	5.9
150°	1.2	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)