

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: P334134

Luminaire Tested: S124DP-S1195D835-4F0-1E-UDD-D

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P334134
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-S1195D835-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1195 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4512.3 lumens
Efficiency: N/A
Efficacy: 109.8 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

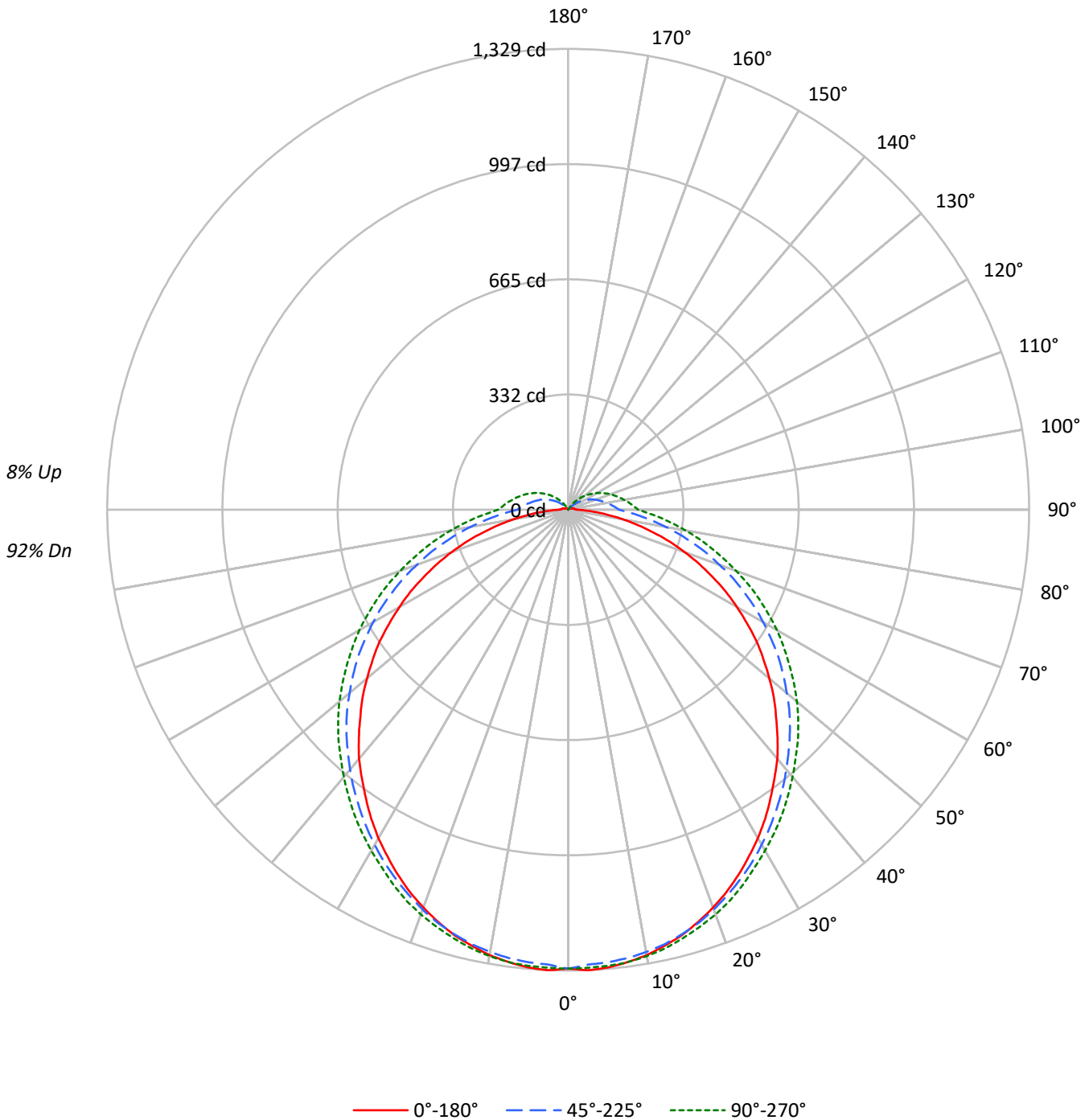
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	10685	10685	10685
5°	10718	10443	10472
10°	10652	10271	10263
15°	10556	10074	10019
20°	10412	9856	9780
25°	10250	9611	9518
30°	10075	9368	9249
35°	9876	9119	9012
40°	9717	8882	8767
45°	9481	8664	8556
50°	9281	8412	8333
55°	9076	8175	8071
60°	8753	7871	7833
65°	8400	7547	7539
70°	7975	7176	7198
75°	7377	6768	6888
80°	6715	6375	6585
85°	5881	6029	6408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9481 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.4	2.8
10°-20°	359.3	8.0
20°-30°	543.3	12.0
30°-40°	657.3	14.6
40°-50°	694.8	15.4
50°-60°	653.9	14.5
60°-70°	542.6	12.0
70°-80°	380.8	8.4
80°-90°	214.7	4.8
90°-100°	127.8	2.8
100°-110°	94.6	2.1
110°-120°	63.5	1.4
120°-130°	35.8	0.8
130°-140°	15.5	0.3
140°-150°	3.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1028.0	22.8
0°-40°	1685.2	37.3
0°-60°	3034.0	67.2
0°-90°	4172.1	92.5
90°-120°	286.0	6.3
90°-150°	340.3	7.5
90°-180°	340.0	7.5
0°-180°	4512.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1325	1320	1310	1322	1320	126
15°	1270	1272	1267	1280	1279	358
25°	1162	1171	1175	1192	1193	535
35°	1017	1034	1049	1070	1074	637
45°	848	876	904	929	937	655
55°	664	695	740	769	778	592
65°	459	507	557	594	606	455
75°	255	310	372	414	427	271
85°	79	141	208	252	267	82
90°	24	83	147	190	202	16
95°	19	68	129	169	182	15
105°	13	43	98	135	147	15
115°	9	22	70	102	113	9
125°	6	4	42	70	79	6
135°	3	3	13	37	46	3
145°	2	0	0	9	15	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1323.5	1323.5	1323.5	1323.5	1323.5
2.5°	1329.4	1325.0	1313.1	1323.5	1322.0
5°	1325.0	1320.5	1310.2	1322.0	1320.5
7.5°	1316.1	1313.1	1304.2	1317.6	1316.1
10°	1304.2	1302.7	1295.3	1308.7	1307.2
12.5°	1287.9	1287.9	1283.5	1295.3	1295.3
15°	1270.1	1271.6	1267.2	1280.5	1279.0
17.5°	1246.4	1250.9	1249.4	1262.7	1261.2
20°	1221.2	1225.7	1227.2	1242.0	1242.0
22.5°	1193.1	1199.0	1202.0	1216.8	1219.7
25°	1161.9	1170.8	1175.3	1191.6	1193.1
27.5°	1127.9	1141.2	1147.1	1161.9	1163.4
30°	1093.8	1105.6	1116.0	1132.3	1135.3
32.5°	1056.7	1071.5	1083.4	1102.7	1105.6
35°	1016.7	1034.5	1049.3	1070.1	1074.5
37.5°	976.7	997.4	1015.2	1036.0	1040.4
40°	938.2	957.4	978.2	1000.4	1006.3
42.5°	893.7	915.9	941.1	966.3	970.8
45°	847.7	875.9	904.1	929.3	936.7
47.5°	804.8	832.9	865.5	890.7	899.6
50°	757.3	789.9	822.6	852.2	861.1
52.5°	709.9	742.5	781.1	810.7	819.6
55°	664.0	695.1	739.6	769.2	778.1
57.5°	612.1	650.6	693.6	729.2	736.6
60°	561.7	600.2	649.1	683.2	695.1
62.5°	512.8	555.8	604.7	638.8	650.6
65°	459.4	506.9	557.3	594.3	606.2
67.5°	409.1	459.4	512.8	549.9	561.7
70°	357.2	407.6	463.9	503.9	514.3
72.5°	306.8	358.7	419.4	458.0	469.8
75°	254.9	309.8	372.0	413.5	426.8
77.5°	206.0	263.8	329.0	370.5	385.3
80°	161.5	220.8	286.0	330.5	342.4
82.5°	117.1	179.3	244.5	290.5	303.8
85°	78.6	140.8	207.5	252.0	266.8
87.5°	48.9	109.7	174.9	217.9	231.2
90°	23.7	83.0	146.7	189.7	201.6
92.5°	22.2	74.1	137.8	179.3	191.2
95°	19.3	68.2	128.9	169.0	182.3
97.5°	17.8	60.8	121.5	160.1	173.4
100°	16.3	54.8	112.6	152.7	163.0
102.5°	16.3	48.9	105.2	143.8	155.6
105°	13.3	43.0	97.8	134.9	146.7
107.5°	13.3	38.5	90.4	127.5	137.8
110°	11.9	32.6	84.5	118.6	130.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.4	28.2	77.1	109.7	121.5
115°	8.9	22.2	69.7	102.3	112.6
117.5°	8.9	17.8	62.2	93.4	105.2
120°	7.4	11.9	54.8	84.5	96.3
122.5°	7.4	7.4	47.4	77.1	87.4
125°	5.9	4.4	41.5	69.7	78.6
127.5°	5.9	4.4	34.1	60.8	71.1
130°	4.4	3.0	26.7	53.4	62.2
132.5°	4.4	3.0	20.7	45.9	54.8
135°	3.0	3.0	13.3	37.1	45.9
137.5°	3.0	1.5	7.4	29.6	37.1
140°	3.0	1.5	3.0	22.2	29.6
142.5°	1.5	1.5	0.0	16.3	22.2
145°	1.5	0.0	0.0	8.9	14.8
147.5°	1.5	0.0	0.0	1.5	7.4
150°	1.5	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)