

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P199469

Luminaire Tested: **S124-DIW-U1-1-40-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199469
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28062)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIW-U1-1-40-0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-4000K, SATIN WHITE DIFFUSER
DOWNLIGHT LL1-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

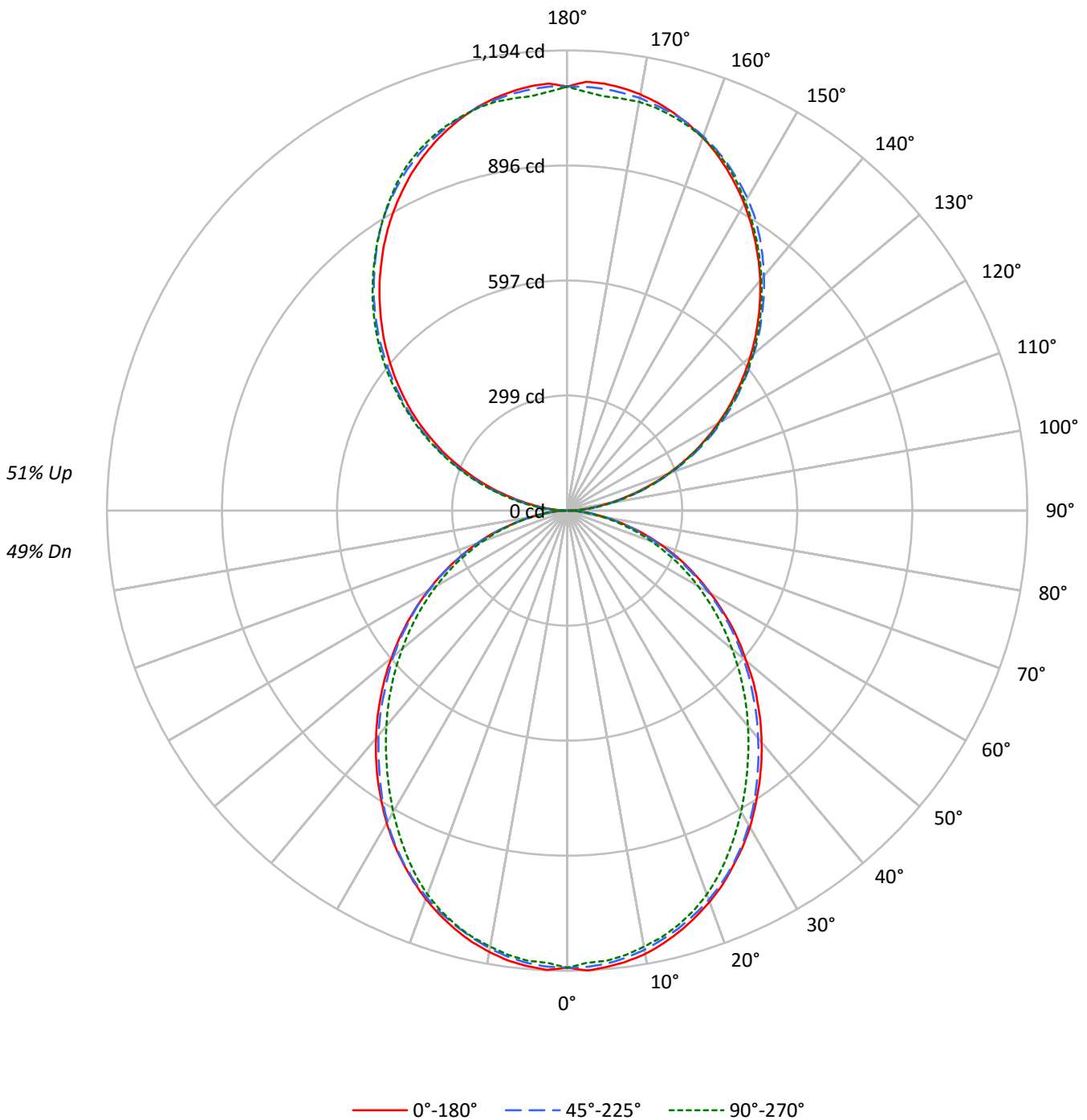
Lumens per Lamp: N/A
Luminaire Lumens: 5975.7 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 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	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	93	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42
2	89	82	76	70	82	75	70	66	64	60	57	53	50	48	43	41	40	35
3	81	72	65	59	75	66	60	55	56	52	48	47	44	41	38	36	34	30
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29	26
5	68	57	49	43	63	53	45	40	45	39	35	38	34	30	31	28	26	22
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17
8	54	42	34	29	50	39	32	27	34	28	24	28	24	21	24	20	18	16
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9378	9378	9378
5°	9362	8472	9345
10°	9230	7697	9190
15°	9029	7005	8983
20°	8799	6327	8735
25°	8519	5643	8441
30°	8226	4997	8120
35°	7876	4402	7766
40°	7525	3876	7395
45°	7146	3393	7006
50°	6719	2936	6599
55°	6336	2510	6170
60°	5861	2104	5694
65°	5392	1706	5178
70°	4791	1313	4568
75°	4030	923	3737
80°	3027	562	2833
85°	1780	249	1682



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	1.9
10°-20°	314.8	5.3
20°-30°	461.1	7.7
30°-40°	528.5	8.8
40°-50°	521.0	8.7
50°-60°	449.1	7.5
60°-70°	327.4	5.5
70°-80°	178.6	3.0
80°-90°	46.9	0.8
90°-100°	56.6	0.9
100°-110°	205.0	3.4
110°-120°	363.0	6.1
120°-130°	482.6	8.1
130°-140°	542.7	9.1
140°-150°	533.6	8.9
150°-160°	450.3	7.5
160°-170°	298.7	5.0
170°-180°	104.1	1.7
0°-30°	887.5	14.9
0°-40°	1416.0	23.7
0°-60°	2386.1	39.9
0°-90°	2939.0	49.2
90°-120°	624.7	10.5
90°-150°	2183.6	36.5
90°-180°	3037.0	50.8
0°-180°	5975.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1186	1186	1186	1186	1186	
5°	1189	1180	1172	1179	1187	113
15°	1130	1121	1114	1116	1124	318
25°	1018	1015	986	1007	1009	469
35°	868	859	815	847	856	543
45°	698	683	645	672	684	538
55°	520	511	475	500	506	464
65°	345	337	311	328	331	341
75°	177	171	157	164	164	188
85°	40	41	38	39	38	46
90°	1	3	2	3	1	6
95°	47	52	51	48	37	52
105°	190	199	196	192	177	202
115°	366	376	369	364	351	362
125°	536	548	544	536	520	480
135°	701	715	708	702	680	541
145°	851	870	857	856	831	533
155°	979	989	986	979	961	451
165°	1068	1065	1059	1058	1055	301
175°	1112	1098	1079	1097	1105	106
180°	1100	1100	1100	1100	1100	



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CATALOG NUMBER: S124-DIW-U1-1-40-0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9
2.5°	1194.5	1180.9	1185.2	1182.3	1174.4	1182.3	1184.5	1180.2	1193.1
5°	1188.8	1175.9	1180.2	1175.9	1172.3	1175.1	1178.7	1173.7	1186.6
7.5°	1180.2	1166.5	1170.1	1166.5	1163.0	1165.8	1168.0	1163.7	1177.3
10°	1168.0	1153.6	1157.2	1152.9	1148.6	1151.5	1153.6	1149.3	1163.0
12.5°	1150.8	1137.1	1140.0	1137.1	1133.6	1134.3	1135.7	1131.4	1145.7
15°	1130.0	1116.3	1121.4	1118.5	1113.5	1116.3	1115.6	1110.6	1124.2
17.5°	1106.3	1093.4	1099.1	1096.3	1089.1	1093.4	1093.4	1085.5	1099.9
20°	1080.5	1066.9	1074.8	1067.6	1059.7	1064.0	1067.6	1058.3	1072.6
22.5°	1051.8	1037.5	1046.8	1033.9	1025.3	1030.3	1038.9	1028.9	1041.8
25°	1018.1	1006.6	1015.3	997.3	985.9	993.0	1006.6	996.6	1008.8
27.5°	985.1	973.7	980.8	960.8	945.0	954.3	971.5	962.9	973.7
30°	948.6	939.3	942.8	919.2	902.7	912.7	932.8	927.8	936.4
32.5°	908.4	901.3	901.3	876.2	858.9	870.4	891.9	890.5	896.2
35°	868.3	864.0	858.9	831.7	815.2	826.0	846.8	852.5	856.1
37.5°	827.4	824.5	815.2	788.7	772.9	784.4	803.7	812.3	814.5
40°	785.1	783.7	770.8	745.7	729.9	741.4	761.4	772.2	771.5
42.5°	742.1	743.5	727.7	703.4	687.6	699.1	717.7	732.0	728.5
45°	697.6	701.9	683.3	661.1	644.6	656.8	671.8	689.7	684.0
47.5°	654.6	659.6	640.3	617.3	601.6	614.5	629.5	648.9	640.3
50°	605.9	615.9	597.2	574.3	558.5	570.7	588.6	605.1	595.1
52.5°	563.6	570.7	554.2	532.0	516.9	527.0	544.9	561.4	550.6
55°	519.8	527.7	511.2	489.0	474.6	484.7	500.5	516.9	506.2
57.5°	473.9	481.8	466.8	446.7	433.1	443.8	460.3	471.8	461.7
60°	429.5	439.5	423.0	403.7	392.2	400.8	413.7	427.3	417.3
62.5°	386.5	395.8	380.0	362.1	351.3	359.2	372.8	383.6	374.3
65°	344.9	350.6	337.0	320.5	311.2	316.2	328.4	340.6	331.2
67.5°	302.6	308.3	294.7	280.3	271.0	276.0	286.1	297.5	288.9
70°	259.5	264.6	253.1	240.2	232.3	237.3	246.6	255.2	247.4
72.5°	218.7	222.3	211.5	201.5	195.7	199.3	205.8	213.7	210.1
75°	177.1	181.4	170.6	162.0	157.0	158.5	163.5	169.9	164.2
77.5°	137.7	142.0	133.4	126.9	124.0	124.8	128.3	133.4	126.2
80°	101.1	104.7	99.7	93.9	91.1	92.5	94.6	97.5	94.6
82.5°	68.1	71.7	68.1	64.5	62.4	63.8	64.5	66.0	63.8
85°	40.2	43.0	40.9	38.7	38.0	38.0	38.7	40.2	38.0
87.5°	17.9	20.1	18.6	17.2	15.1	15.8	16.5	17.9	16.5
90°	1.4	3.6	2.9	2.2	2.2	2.2	2.9	3.6	1.4
92.5°	21.5	24.4	25.1	22.9	22.9	22.2	20.8	20.1	12.9
95°	47.3	51.6	52.3	52.3	50.9	49.5	48.0	44.5	36.6
97.5°	76.7	81.7	83.2	81.7	82.5	81.0	77.4	73.8	66.0
100°	110.4	116.9	118.3	116.9	117.6	114.0	112.6	109.0	99.7
102.5°	147.7	155.6	156.3	154.9	154.9	152.0	150.6	146.3	136.9
105°	190.0	198.6	199.3	196.5	196.5	193.6	192.2	187.9	177.1
107.5°	233.0	241.6	241.6	238.8	238.8	236.6	233.7	230.9	220.1
110°	277.5	284.6	286.1	282.5	281.8	279.6	276.8	272.5	263.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	321.9	329.1	330.5	326.2	325.5	321.2	320.5	315.5	306.2
115°	366.4	373.5	375.7	370.7	369.2	364.2	364.2	359.2	350.6
117.5°	409.4	418.0	420.2	414.4	413.7	409.4	406.5	402.2	392.9
120°	452.4	463.2	464.6	458.2	457.4	452.4	451.0	445.2	435.9
122.5°	495.4	506.2	508.3	502.6	500.5	494.0	493.3	488.3	478.2
125°	536.3	548.5	548.5	545.6	543.5	538.5	535.6	529.9	519.8
127.5°	578.6	591.5	590.8	588.6	586.5	579.3	577.2	571.4	560.7
130°	620.2	631.7	631.7	630.2	628.8	622.3	618.8	613.0	600.8
132.5°	661.1	672.5	674.0	670.4	668.9	660.3	661.1	653.9	641.7
135°	701.2	711.2	714.8	709.1	708.4	699.1	701.9	692.6	680.4
137.5°	740.6	748.5	755.0	747.8	747.1	737.8	742.1	729.9	719.1
140°	779.4	785.8	794.4	785.8	784.4	775.8	780.1	767.2	757.9
142.5°	815.9	821.7	832.4	823.1	820.9	813.1	818.1	803.0	794.4
145°	851.1	855.4	869.7	859.7	856.8	849.6	856.1	837.4	831.0
147.5°	886.2	888.3	904.8	895.5	891.2	885.5	891.9	871.1	866.1
150°	919.2	919.2	935.7	928.5	924.9	918.5	922.8	902.7	899.1
152.5°	950.0	948.6	963.6	959.3	957.2	950.0	951.4	932.8	930.6
155°	978.7	975.8	989.4	987.3	985.9	978.7	978.7	960.0	960.8
157.5°	1005.9	1000.2	1013.1	1012.4	1009.5	1003.8	1002.3	985.9	988.0
160°	1029.6	1024.6	1033.2	1031.7	1029.6	1023.9	1023.9	1009.5	1013.1
162.5°	1050.4	1043.9	1051.1	1046.8	1046.1	1039.6	1042.5	1030.3	1035.3
165°	1068.3	1061.9	1065.4	1059.7	1059.0	1053.3	1058.3	1049.7	1055.4
167.5°	1084.1	1076.9	1076.2	1071.2	1069.7	1065.4	1071.2	1066.2	1072.6
170°	1096.3	1089.1	1086.9	1078.3	1076.9	1073.3	1081.9	1080.5	1086.2
172.5°	1105.6	1098.4	1093.4	1083.4	1078.3	1079.1	1090.5	1090.5	1097.0
175°	1112.0	1104.2	1098.4	1088.4	1079.1	1084.8	1097.0	1097.7	1104.9
177.5°	1113.5	1105.6	1100.6	1091.3	1087.7	1088.4	1101.3	1101.3	1109.2
180°	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9

(END OF REPORT)