

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: P199422

Luminaire Tested: **S122-DIP-ULO-1-35-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199422
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27883)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIP-ULO-1-35-X-X0048-1D-UDD-1-5-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LLO-3500K, SATIN WHITE DIFFUSER
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3810.5 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Direct

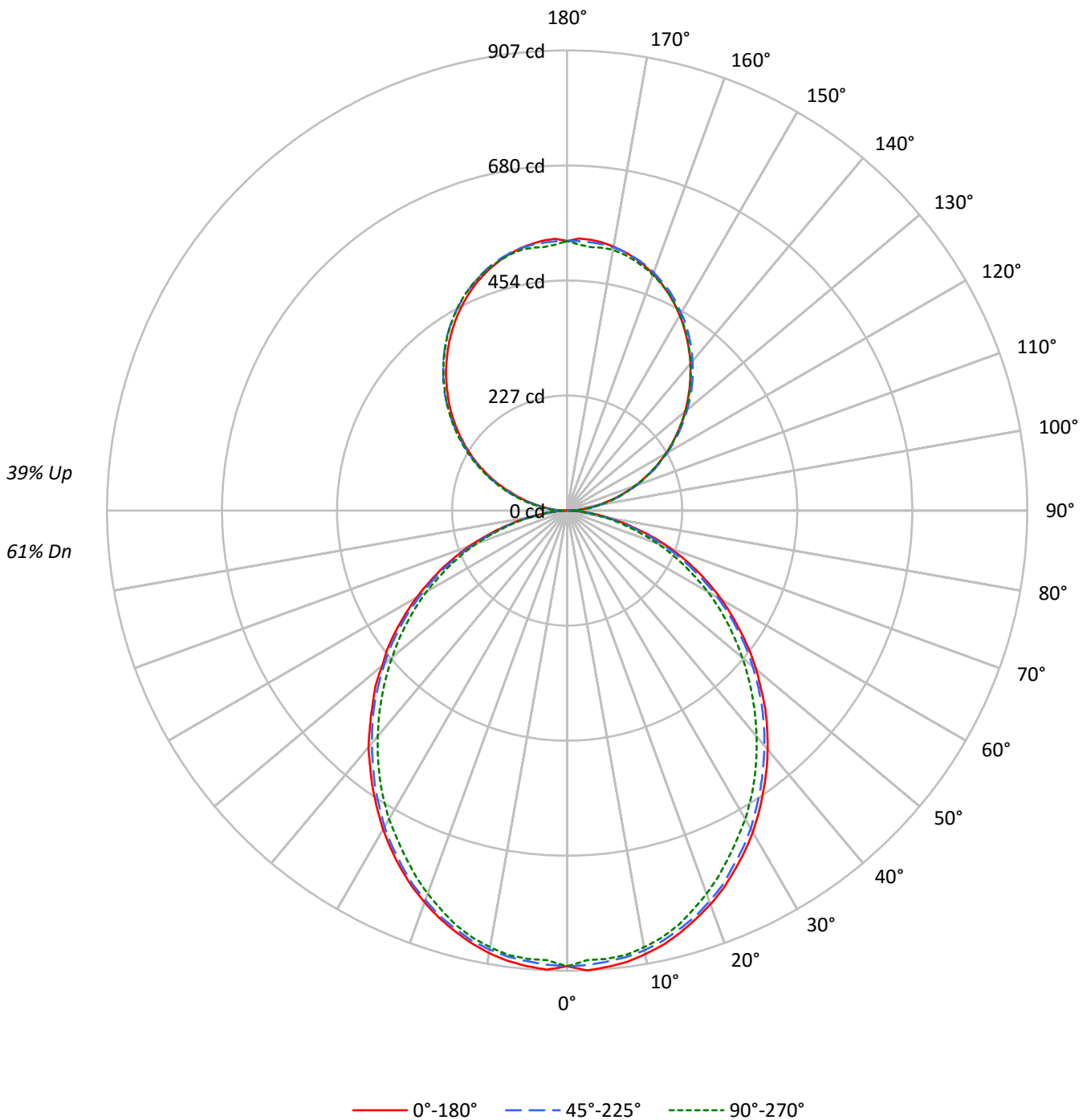
Input Watts (W): 40.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	100	96	92	88	94	90	86	83	78	76	74	68	66	64	58	57	56	51
2	91	84	78	72	85	79	73	68	69	65	61	60	57	54	51	49	47	43
3	83	74	66	60	78	69	63	57	61	56	51	53	49	46	46	43	40	36
4	76	65	57	51	71	61	54	49	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	38	33	38	33	30	33	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	30	27	24	21
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	28	24	21	19
9	52	39	32	27	48	37	30	25	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	23	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14204	14204	14204
5°	14221	11766	14199
10°	14029	10047	13996
15°	13764	8642	13708
20°	13450	7436	13383
25°	13076	6418	13006
30°	12697	5578	12588
35°	12234	4827	12122
40°	11783	4152	11676
45°	11312	3552	11114
50°	10783	3013	10552
55°	10192	2523	10024
60°	9593	2068	9344
65°	8861	1624	8558
70°	7950	1221	7566
75°	6640	822	6194
80°	4953	478	4492
85°	3072	189	2585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	2.2
10°-20°	239.7	6.3
20°-30°	353.5	9.3
30°-40°	412.3	10.8
40°-50°	413.1	10.8
50°-60°	361.4	9.5
60°-70°	265.9	7.0
70°-80°	144.1	3.8
80°-90°	36.9	1.0
90°-100°	37.1	1.0
100°-110°	108.1	2.8
110°-120°	181.8	4.8
120°-130°	237.0	6.2
130°-140°	264.3	6.9
140°-150°	258.4	6.8
150°-160°	217.4	5.7
160°-170°	144.5	3.8
170°-180°	50.3	1.3
0°-30°	677.9	17.8
0°-40°	1090.2	28.6
0°-60°	1864.7	48.9
0°-90°	2311.7	60.7
90°-120°	326.9	8.6
90°-150°	1086.7	28.5
90°-180°	1499.0	39.3
0°-180°	3810.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	898	898	898	898	898	
5°	903	892	887	892	902	86
15°	861	854	846	853	858	243
25°	781	774	754	772	777	360
35°	674	665	644	660	668	422
45°	552	542	516	537	542	425
55°	418	410	386	403	411	374
65°	283	272	253	264	274	280
75°	146	139	126	130	136	155
85°	35	33	28	28	29	39
90°	1	4	5	4	1	5
95°	31	35	35	33	29	32
105°	101	106	104	101	95	107
115°	184	187	184	181	177	182
125°	264	269	265	263	258	236
135°	341	348	342	344	334	263
145°	412	419	414	414	405	258
155°	472	477	472	472	466	218
165°	515	516	511	513	511	145
175°	536	531	521	530	534	51
180°	531	531	531	531	531	



TEST NUMBER: P199422

CATALOG NUMBER: S122-DIP-ULO-1-35-X-X0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1
2.5°	907.1	894.6	896.7	893.9	887.0	893.2	896.0	893.9	905.7
5°	902.9	890.4	892.5	889.0	887.0	889.0	891.8	889.0	901.5
7.5°	897.4	883.5	887.7	885.6	883.5	884.9	887.0	882.1	895.3
10°	887.7	873.8	880.0	875.8	873.8	875.2	878.6	871.7	885.6
12.5°	876.5	862.7	868.9	864.0	862.0	862.0	868.2	860.6	873.1
15°	861.3	850.1	854.3	849.5	846.0	848.1	852.9	847.4	857.8
17.5°	843.9	834.2	839.0	831.4	825.1	830.0	837.0	830.7	841.1
20°	825.8	814.7	819.6	809.2	803.6	807.8	816.8	811.9	821.7
22.5°	805.7	795.3	799.4	785.6	780.0	783.5	796.7	791.8	800.8
25°	781.4	773.1	773.7	759.9	753.6	757.8	771.7	768.9	777.2
27.5°	757.8	749.4	750.1	734.2	727.2	732.8	746.7	744.6	752.2
30°	732.1	724.4	723.7	707.8	702.2	705.7	719.6	719.6	725.8
32.5°	703.6	697.3	693.9	679.3	673.7	677.9	689.7	691.8	696.6
35°	674.4	670.3	665.4	651.5	643.9	649.4	660.5	663.3	668.2
37.5°	645.3	640.4	634.8	620.9	612.6	619.6	629.3	634.1	637.6
40°	614.7	611.2	605.0	591.1	580.7	587.6	598.7	604.3	609.1
42.5°	583.4	581.4	573.7	559.1	548.7	556.3	568.2	573.0	575.1
45°	552.2	549.4	542.5	527.2	516.1	524.4	536.9	541.8	542.5
47.5°	517.5	518.1	509.8	494.5	483.4	491.8	502.9	509.8	512.6
50°	486.2	486.9	477.2	461.9	450.8	457.0	470.2	477.2	475.8
52.5°	452.9	454.9	444.5	429.2	418.1	424.4	437.6	445.2	445.9
55°	418.1	421.6	410.5	395.2	385.5	391.7	402.8	411.9	411.2
57.5°	384.8	387.6	376.5	362.6	352.8	358.4	368.1	379.9	377.1
60°	351.5	354.2	342.4	328.5	320.2	323.0	334.1	343.8	342.4
62.5°	317.4	320.2	307.7	295.2	285.5	289.6	299.4	311.2	307.7
65°	283.4	285.5	272.3	261.2	252.8	257.0	263.9	276.4	273.7
67.5°	249.3	250.7	238.9	228.5	221.6	223.7	229.9	240.3	238.9
70°	215.3	216.7	205.6	195.9	189.6	191.7	196.6	206.3	204.9
72.5°	180.6	182.7	171.6	162.5	156.3	158.4	161.8	170.9	168.8
75°	145.9	147.2	138.9	132.0	126.4	127.1	129.9	136.8	136.1
77.5°	113.9	117.4	108.4	102.1	97.9	98.6	102.1	105.6	104.2
80°	82.7	86.8	80.6	75.7	72.2	71.5	74.3	77.1	75.0
82.5°	58.3	59.0	54.9	51.4	47.9	47.9	50.0	52.1	50.0
85°	34.7	36.1	32.6	29.9	27.8	27.1	28.5	30.6	29.2
87.5°	16.7	17.4	13.9	12.5	10.4	9.7	10.4	11.8	11.8
90°	1.4	3.5	3.5	4.2	4.9	4.9	4.2	4.2	0.7
92.5°	19.3	21.4	22.5	21.8	21.4	20.3	20.3	19.3	17.1
95°	30.7	33.9	35.3	35.0	35.0	33.5	33.2	32.1	28.9
97.5°	45.3	48.9	50.0	50.3	50.0	48.2	47.1	46.0	42.5
100°	62.1	65.7	66.7	66.7	66.4	64.6	63.2	61.7	57.8
102.5°	80.7	84.2	85.3	84.6	84.6	82.1	80.7	79.6	75.3
105°	101.4	104.9	105.6	104.6	104.2	101.7	100.6	99.2	95.3
107.5°	121.3	124.9	124.6	124.2	122.8	121.0	120.3	118.1	113.1
110°	142.0	146.7	144.9	144.2	142.8	141.0	140.3	139.5	135.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	162.7	167.7	165.6	164.9	163.1	161.0	161.0	160.6	156.7
115°	183.8	188.8	186.7	185.2	183.8	181.7	181.3	181.7	177.4
117.5°	204.1	209.9	207.4	205.6	204.1	201.6	202.0	202.7	198.1
120°	224.5	230.9	228.1	225.9	224.8	222.0	222.3	223.8	218.4
122.5°	244.5	250.9	248.4	246.3	245.2	242.0	242.7	243.4	238.4
125°	264.5	270.9	268.7	266.2	265.2	263.0	263.4	263.4	258.4
127.5°	284.1	290.5	289.1	286.2	284.8	282.0	283.4	282.3	278.0
130°	303.4	309.4	308.7	305.5	304.4	302.7	303.7	300.5	297.3
132.5°	322.3	328.3	328.7	325.1	323.7	321.9	324.1	320.5	316.2
135°	341.2	346.5	348.0	344.1	342.3	340.8	343.7	338.0	334.4
137.5°	359.4	363.7	366.9	362.3	360.8	358.3	361.9	356.2	353.0
140°	378.0	381.5	384.4	380.8	379.0	376.9	379.7	374.0	370.8
142.5°	395.1	399.0	401.9	398.3	396.2	394.4	397.2	391.2	388.3
145°	412.2	415.4	419.0	415.8	413.6	411.9	414.4	408.3	405.4
147.5°	428.3	431.1	435.4	431.8	429.7	428.3	430.1	424.0	421.5
150°	444.0	445.4	449.7	447.6	444.7	443.3	444.7	439.3	437.2
152.5°	458.6	459.7	463.6	461.1	459.7	457.2	459.0	453.6	452.2
155°	472.2	472.5	477.2	474.3	472.5	470.8	472.2	467.9	466.1
157.5°	485.0	485.0	488.2	486.8	484.0	483.2	484.3	479.7	479.3
160°	496.1	495.4	499.3	496.8	494.3	493.6	495.4	491.1	490.7
162.5°	506.4	505.0	508.6	505.4	503.2	502.5	505.0	501.1	501.4
165°	515.0	513.2	516.1	512.9	510.7	510.4	513.2	509.3	510.7
167.5°	522.5	519.6	522.1	518.9	517.1	516.8	520.0	516.4	518.6
170°	528.2	524.6	526.8	522.5	521.8	521.1	525.0	521.8	525.4
172.5°	532.9	528.9	529.6	525.0	522.5	523.9	528.2	526.4	530.4
175°	535.7	531.4	530.7	525.7	521.4	524.6	530.0	529.6	534.3
177.5°	536.8	532.9	531.8	526.1	524.6	525.4	531.4	531.8	536.1
180°	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1

(END OF REPORT)